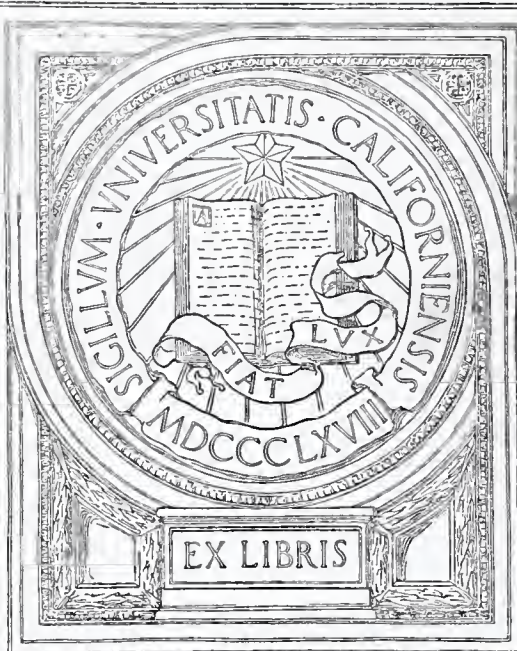
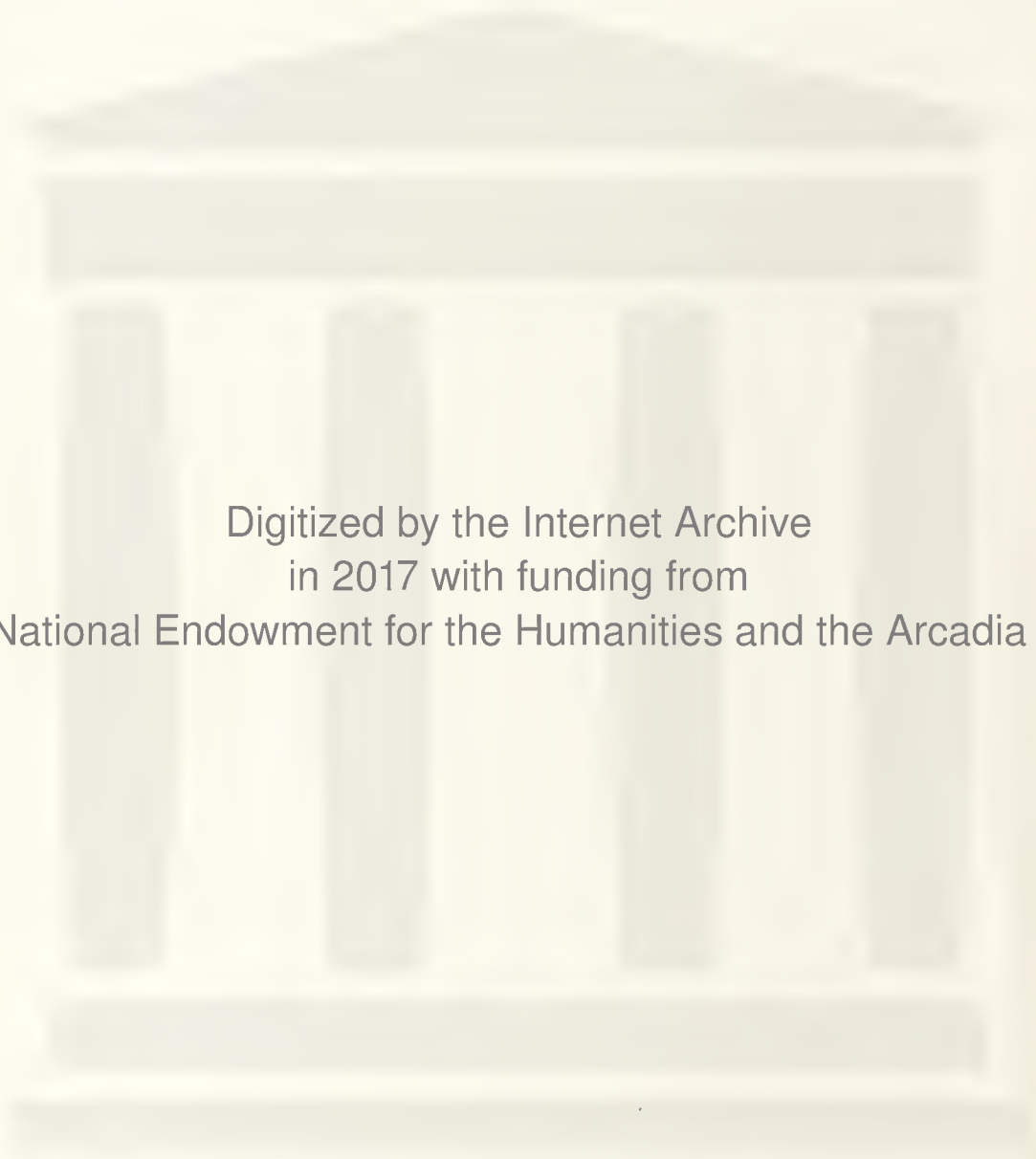


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The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

XLII

LITTLE ROCK, ARKANSAS, JUNE, 1945

No. 1

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TO THE AMERICAN PEOPLE:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace.



We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity.

Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.



William B. Leahy
Douglas MacArthur
Dwight D. Eisenhower
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*Romeo, Z. J.: Sulfur and Soap as Effective Prophylaxis Against "Chiggers" (Red Bugs) in the Army, Mil. Surgeon, 90:437-439 (April) 1942.

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No. 1

PENICILLIN IN MEDICINE *

FRED WILLIAM HARRIS, M. D.**

The speaker desires to make it clear that no claim is made for any original work. An attempt has been made to review all the pertinent literature and summarize for the busy doctor, "Penicillin and Its Use in Medicine."

History. In 1910, Paul Ehrlich succeeded in producing arsphenamine and, at that time, he issued a challenge to the medical world and plead for a greater therapeutic sterilizing agent that would rid the blood stream of the streptococci and the staphylococci organisms as effectively as arsphenamine killed the treponema. In 1929, Alexander Fleming discovered penicillin but very little practical use was made of this discovery. In 1936, Gerhardt Domagk's discovery of prontosil created a tremendous sensation among the physicians of the world. This new drug, which was one of the sulfanated dyes, underwent metabolism in the body and was excreted to a large extent as sulfanilamide. This was rapidly followed by a multiplicity of important therapeutic agents of this group of compounds. Among these, sulfapyridine, sulfathiazole, sulfadiazine, sulfaguanidine and sulfamerazine are the outstanding drugs used in a large variety of systemic and local infections. In 1939, R. J. Dubos, while pursuing his studies at the Rockefeller Institute for Medical Research, was attempting to find a universal bactericidal agent. Working along the deduction that the soil must contain some bactericidal agent because all material buried in soil underwent decomposition, he developed the three following agents: Tyrocidine hydrochloride (first called graminic acid), gramicidin (a crystalline neutral substance), and tyrothricin, which consists of tyrocidine and gramicidin and was first called gramidinic acid.

All three substances show marked bactericidal activity against gram-positive organisms. Under suitable experimental conditions, tyrothricin and tyrocidine show bactericidal activity against gram-negative as well as gram-positive microorganisms. Due to the high toxicity of these materials, it was found impractical and even dangerous to use them intravenously or intramuscularly. Therefore, these three substances were discarded for practical use. Due to the tremendous success of the sulfanated dyes, Fleming's work lay dormant for ten years. In 1939, Chain, Florey and their associates at the Sir William Dunn School of Pathology, Oxford, cooperated with Fleming in a further study of penicillin. Preliminary results published in 1940 demonstrated the slightly purified preparation of penicillin possessed remarkable antibacterial properties against certain organisms. In the next 18 months, 187 papers were published on penicillin and its use.

What Is Penicillin?

Penicillin is a mold of which there seem to be eight strains but only one of them was found to have an inhibitory power and this particular strain is penicillium notatum. Penicillin gets its name from the Latin word penicillium, which means "brush-like."

How Is Penicillin Produced Commercially?

First, the species is obtained from the soil medium and planted on an agar slant. This mold is used to inoculate several larger containers in which the mold grows freely. This procedure is repeated again and again until enough mold is obtained to inoculate the final culture which produces commercial penicillin. When sufficient quantities have been obtained, nutrient containing milk sugar, corn-steeping liquor and certain mineral salts are inoculated and usually after seven days incubation, the maximum potency of penicillin is obtained and the cultures are harvested. The liquid containing the penicillin is collected in large vessels and the mat of mold growth is of no value and is discarded. The liquid material is first centrifuged and the remaining solution is subjected to extraction

* Read before the Pulaski County Medical Society, Little Rock, March 5, 1944.

** Assistant Professor of Medicine, University of Arkansas School of Medicine.

with organic solvent which takes out the penicillin and leaves behind many impurities. For the additional purification of the penicillin it is accomplished by repeated extraction of the material from one solvent to another. The last step in purification is carried out in all glass equipment with pyrogen-free materials. It consists of making an aqueous solution of sodium salt of penicillin. This solution is then assayed for penicillin activity and is tested for stability, for sterility, and for freedom from toxicity. If these tests are satisfactory, the solution is filled into ampoules, frozen, and dehydrated from the frozen state, and the ampoules are sealed. This penicillin is then ready for injection when it is dissolved in sterile distilled water or sterile isotonic solution of sodium chloride. The finished ampoule is sodium salt of penicillin. It is a dried amorphous mass of powder, brownish yellow, or yellowish in color. The calcium salt is a fluffy light yellow material. Both forms are readily soluble in water.

Mode of Action

Penicillin is not an antiseptic and asserts no direct immediate bactericidal action, although its bacteriostatic power against streptococcus and staphylococcus is as great as or greater than that of the most powerful antiseptic known. Penicillin is influenced only to a minor extent by the bacteria present. Several millions of organisms per cubic centimeter of medium being completely inhibited by penicillin and in concentration is as low as one to one million. Penicillin's chief action is in its prevention of multiplication of organisms. It has also been found that penicillin appears to be capable of destroying bacteria only if multiplication takes place. Therefore, temperature plays some part in the activity of penicillin against organisms. Florey points out that reliance must be placed on the body defenses to destroy the bacteria present, while penicillin prevents multiplication of the organisms. In the concentrations likely to be used therapeutically it is bacteriostatic and not bactericidal. It is interesting to remember that penicillin does not interfere with the activity of leucocytes. It is also interesting to note that penicillin is not destroyed or absorbed from solution by some organisms, and lysis of some organisms does not occur. Some penicillin is apparently lost in the body which has not been satisfactorily explained. Studies by Abraham, Rammelkamp and Keefer show that when penicillin is injected intravenously, excretion in the urine accounts for approximately 60 per cent of the administered dose. When given subcutane-

ously or intramuscularly, the percentage of recovery in urine is lower. The cause of this apparent loss is not explained. The chief factor causing the rapid clearing of penicillin from the blood is its excretion in urine, the period of greatest excretion being accompanied by an increase in the volume of urine.

What Organisms Respond to Penicillin?

It has been found that all gram-negative organisms tested were relatively insusceptible to the action of penicillin, while gram-positive organisms were susceptible. Strains of pneumococci and streptococcus hemolyticus tested were two to four times more sensitive than the staphylococcus and ten to twenty times more so than strains of non-hemolyticoccus. Robinson found that staphylococcus aureus and diplococcus pneumoniae were somewhat more resistant to penicillin than the streptococcus hemolyticus, although penicillin is bactericidal to all three strains in the dilutions of one to two million and it appeared to be primarily bacteriostatic in dilutions of one to five million against them. An experiment made by the blood agar plate method, the action of penicillin on gram-positive and gram-negative organisms, showed striking differences. Whereas the gram-positive strains tested were inhibited by a dilution of one to one million, dilutions of one to one thousand to one to four thousand were required to inhibit the growth of strains of gram-negative organisms. Additional data will be given under the heading of "Diseases Responding to Penicillin."

The Clinical Use of Penicillin

It has already been pointed out that gram-positive organisms are more sensitive to penicillin than gram-negative organisms. Also it has been demonstrated that streptococcus is more susceptible to penicillin than is the staphylococcus. The clinical use of penicillin in private practice still remains somewhat restricted due to the insufficient quantities available for the physician in private practice. It should be remembered that when the sulfanomides are efficacious that they should be used. Again penicillin, as it is now administered, does not lend itself to practice in the office or in the home and, therefore, is restricted to institutional administration due to the fact that it must be given at frequent intervals.

It seems reasonable to presume that there will be a continued abuse in the use of penicillin, in those cases that have not responded to the better scientific administration of well rec-

ognized therapy. Also there may be a tendency to use penicillin in cases that have not responded to treatment and sometimes to cases that have presented a problem in diagnosis. It is now the consensus of opinion that penicillin is indicated for the following infections:

1. Staphylococcic Infections (with or without bacteremia). These include medical and surgical conditions in which the predominating organism is a staphylococcus, acute osteomyelitis, carbuncle, meningitis, lateral sinus thrombosis, pneumonia, empyema, kidney abscess, and wound infection.

2. Clostridia Infections. These include gas gangrene in all its forms (including so-called "malignant edema").

3. Hemolytic Streptococcic Infections (with or without bacteremia). These include serious localized infections, such as cellulitis, mastoiditis with intracranial complications (including meningitis, lateral sinus thrombosis, etc.), pneumonia, empyema, puerperal sepsis, and peritonitis.

4. Anaerobic Streptococcic Infections. Puerperal sepsis is the condition in this category that is most frequently met with.

5. Pneumococcic Infections. These include pneumococcic meningitis, pleuritis and endocarditis, and all cases of sulfonamide-resistant pneumococci pneumonia.

6. Gonococcic Infections. These include all cases of gonorrhea complicated by arthritis, ophthalmia, endocarditis, peritonitis, or epididymitis, and all cases of sulfonamide-resistant gonorrhea.

7. Meningococcic Infections. Those that do not respond to sulfadiazine should receive penicillin.

8. New Uses. It now seems likely that penicillin will prove useful in primary syphilis, actinomycosis and subacute bacterial endocarditis. Its position in these infections is not, however, as yet clearly defined.

Contraindications. Penicillin is contraindicated in the following situations, because it is ineffective; in—

1. Gram-Negative Bacillary Infections. These include typhoid, paratyphoid, bacillary dysentery, tularemia and infections caused by *E. coli*, *H. influenzae*, *B. proteus*, *B. pyocyaneus*, *Br. melitensis* (undulant fever), and *B. friedlander*.

2. Miscellaneous Infections. The following infections are not affected by penicillin: tuberculosis, toxoplasmosis, histoplasmosis, acute rheumatic fever, diffuse lupus erythematosus, infec-

tious mononucleosis, pemphigus, Hodgkin's disease, acute and chronic leukemia, ulcerative colitis, coccidiomycosis, malaria, poliomyelitis, blastomycosis, nonspecific iritis and uveitis, and moniliasis.

3. Certain Mixed Infections. Penicillin is of doubtful value in mixed infections of the peritoneum and liver in which the predominating organism is gram-negative; including ruptured appendix, liver abscess, urinary tract infections; and in rat bite fever caused by streptobacillus moniliformis.

Administration. The consensus of opinion is that penicillin is most rapidly effective when given intravenously by the continuous drip method. It may be given at stated intervals of two to four hours. It might be added that penicillin is also most rapidly excreted when administered by vein. Given intramuscularly the absorption is slower and excretion slower. It is generally thought that by this method it should be administered every three or four hours. It is well to remember that the concentration should be kept low due to the pain of frequent injections of large volume. It has been successfully administered intrathecally, precautions being taken to remove sufficient amounts of spinal fluid before giving penicillin. Topical application in the form of a isotonic solution or in a cream has been found to be of value. Solutions of penicillin may be used in infected body cavities, such as empyema. Administration by mouth is of questionable value due to the destruction of penicillin by acid. Some few have given penicillin by the duodenal tube, but again this is probably not the best method of administration.

Dosage. The dose given depends somewhat upon the virulence of the infection. In general, 15 to 20 thousand units are given every two to four hours until the temperature is normal and evidence of the infection being controlled is obtained. Then, the dose may be reduced by one-half. It is important to remember that penicillin should be given from 7 to 14 days, depending upon the severity of the infection.

Potency Standard Adopted

A penicillin potency standard has been adopted by the federal Food and Drug Administration and is kept in Washington. It is the crystalline sodium salt of penicillin with a potency of 1,650 units per milligram as determined on the basis of many assays made by leading manufacturers of penicillin and by the Northern Regional Research Laboratories. In the future, dosage of penicillin will probably be measured in milligrams

on the basis of 1,650 units per milligram. A unit is the amount of penicillin necessary to inhibit a standard non-culture of organisms.

Laboratory Test

At present there is no simple chemical determination of the blood level of penicillin. Usually the amount recognized has been determined on the amount of penicillin obtained from the blood, after administration, to inhibit the growth of the non-culture of organisms.

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COMMUNIQUE

April 30, 1945

To the Editor:

Your recent letter containing the essay by Ben Franklin was all right. However, I am inclined to disagree with him on the ages of my women. That is one thing a man over here in these desolate parts does not have to worry about for they are wild mountain people, in rags and very filthy would be putting it mildly. We are now resting in between campaigns. Our weather is excellent; what you would pay for at home. I have an excellent sun tan and am taking a sun bath each day at noon. Being in my 21st month overseas, we are beginning to think about our possibilities of rotation. They don't look so bright. However, it would sure be nice to come home, at least for a visit.

Sincerely,

Hunter A. Causey, Captain, M. C.

REPORT OF TUMOR CLINIC, UNIVERSITY OF ARKANSAS SCHOOL OF MEDICINE *

CARL A. ROSENBAUM, M. D.
Little Rock

It is not possible at the present time to furnish mortality statistics or rate of cure at the University of Arkansas Tumor Clinic, since this group was only recently organized and approved by the American College of Surgeons. These figures will be reported as soon as available. At this time we would like to report the results of a study of the cases that have been referred for treatment. This analysis includes only cancer of the skin, breast, lip and intra-oral, since it is in these groups that we can expect a high percentage of cure under ideal conditions. The so-called incurable group, that is, esophagus, lung and liver, are almost 100 per cent fatal, and we can expect little or no improvement in mortality until it is possible to recognize the disease at an earlier stage than we are able to do now. On the other hand, the rate of cure in carcinoma of the lip should be as high as 80 to 90 per cent, skin lesions 70 to 80 per cent, breast 35 to 40 per cent, oral 25 to 50 per cent. Many of the cases seen by us are too far advanced to expect results such as these. The frequency and seriousness of delay in reporting for treatment is quite evident.

A total of 448 cases were studied as to duration of symptoms and size of the lesion before treatment was started. Of this total, 181 were breast cases, 89 of whom had clinical signs of metastasis. 43.5 per cent had noticed the tumor 6 months or less, the remainder ranging from 1 to 5 years without diagnosis or treatment. Only 16.6 per cent had tumors 3cm or less in size, the remainder being from 4cm to involvement of the entire breast. Any breast cancer larger than 4cm has, in all probability, metastasized, thus reducing greatly the chances for cure.

There were 198 cases of skin cancer. Of these 18.5 per cent had symptoms 6 months or less. The remainder ranging from 1 to 5 years. 43.7 per cent of this group had lesions for 5 years or longer. Some of these had inadequate treatment. 15 per cent had cancers 6cm or larger.

The success of a cancer program is measured only in part by the number of patients treated. Of more importance is the curability of the lesion at the time the patient reports. This de-

pends upon the promptness with which the patient reports for treatment when symptoms of cancer are first noted. Delay is due largely to a lack of knowledge of the early signs and symptoms. Educational effort must be directed to the laity to provide this information. In meeting this problem, continuous effort will be necessary. The people themselves must be made aware of the conditions that lead to cancer and voluntarily take steps to correct them. We should make every effort to see that any and all patients with cancer are given the benefit of the progress and improvements in diagnosis and treatment.

There are four categories of cancer control: First, lay education; second, professional education; third, the promotion of diagnostic and therapeutic clinics. It is the consensus of opinion that tumor clinics constitute the most effective means of reducing cancer mortality. The establishment of such clinics in general hospitals strategically located throughout the state where requirements can be met and where the greatest number can be served is highly desirable.

Fourth, statistical research. The treatment of cancer demands continuous follow-up. This is the immediate problem of the University Clinic. May I urge that you who refer patients assist when you can in determining the results of treatment. We have many records of patients treated that are incomplete because we are unable to contact the patient.

COMMUNIQUE

May 5, 1945

To the Editor:

A note to let you know that Allan Russell and I are now in the * * *. We seem to be following Monfort, or he is following us but we haven't seen him in over a year.

It's nice to be back in civilization again, even a war-torn one such as this. The Nips are right in our back yard but no one bothers much about them although we have had to duck on occasion.

We are meeting a number of civilian doctors who are trying to practice their profession. It's pretty difficult for them but they manage to turn out a respectable amount of work.

Good luck to the gang.

Louis K. Hundley, Major, M. C.

* Read before the Sixty-ninth Annual Session, Arkansas Medical Society, Little Rock, April 18, 1944.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART
ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M. D., Chairman, Fort Smith

There is a tendency on the part of some clinicians to take for granted certain therapeutic concepts and to apply them in rather a stereotyped manner without due consideration for exceptions that might arise in individual cases. The question of rest and bed rest, as applied to cardiac patients, furnishes an outstanding example. Herewith follows a discussion of rest, bed rest and heart disease by Samuel A. Levine of Boston.

"There has been considerable discussion in recent months concerning the value of rest in the treatment of heart disease. The time-honored dictum of "rest in bed" is being reappraised and challenged. It appears that there is much reason to question the wisdom of our former methods, but confusion will result if care is not taken to analyze the exact state of affairs and the particular aims and problems involved. As is well known, rest to the affected part is a fundamental principle in the treatment of most diseased organs. A fractured bone is put in a splint, a lung is immobilized by pneumothorax to put the affected parts at rest. Likewise, patients with heart disease have been put to bed to decrease the work of the heart, for complete rest of the heart obviously cannot be obtained. However, when a cardiac is put to bed the situation is not quite the same as with some other types of patients. Many cardiacs have been kept in bed weeks or months, not days. They are often weak, cannot move around very much in bed, often have abdominal distention, frequently have a slow and feeble circulation, may have a poor appetite and suffer from undernutrition, are apt to be laboring with poor respiratory function, and many are elderly. All this is quite different than the situation that exists when a young man with active pulmonary tuberculosis is bed-ridden for months.

Another important difference to be appreciated in trying to rest the heart is that it really consists of two organs, the right and left portions of the heart. A given effect on one side may produce a favorable result on the other in one case and an unfavorable one in another case. As will become clear later, under certain circumstances rest in bed may actually increase the work of the heart, a result of rest that is unique

and does not occur with many other organs of the body.

In discussing the value of rest in the treatment of heart disease we must scrutinize its application in different conditions. Its effect may be quite different in a young child with active rheumatic carditis than in an adult with hypertensive heart disease and paroxysmal nocturnal dyspnoea. Likewise, it may be different for a case of acute coronary thrombosis in a man 40 years old than in a man 75 years old. The age, the economic and domestic facilities available need to be considered. Insufficient thought is often given to the economic and psychological effects of prolonged invalidism on the patient. Finally, we need to distinguish between rest and rest in bed, because the actual bodily position assumed by the patient when he is recumbent in the ordinary bed is of considerable importance.

Let us now consider the effect of bed rest on the dynamics of the circulation. Normally, rest and recumbency tend to produce a slight fall in blood pressure, a slowing of the pulse and a decrease in the basal metabolic demands of the body. All this would decrease the work of the heart. However, there are other effects that, although unimportant in patients with a normal heart and also in many forms of heart disease, may act deleteriously in some cardiacs. When the patient has peripheral edema, and even if this is not perceptible, there is a greater flow of body fluids from the tissue spaces into the veins and therefore into the right side of the heart, during the period of recumbency than when the patient is upright. This increases the total blood volume, which already is almost always increased in congestive failure. The result is just the opposite of what we aim to produce, as improvement in most instances accompanies a decrease rather than an increase in blood volume. In fact, phlebotomy is practiced, and often successfully, just for this purpose.

Some of these changes in the circulation have been investigated by Perera and Berliner. They found that the assumption of the horizontal position in patients with nocturnal paroxysmal dyspnoea and in normal individuals caused a decrease in serum concentration (dilution from increased blood volume) and a slight increase in venous pressure in both groups. The serum protein was also found to rise toward the normal level in patients about fifteen minutes after the attacks of dyspnoea were over. It follows from these observations that recumbency produces hemodilution and an increased blood volume as a result of the flow of fluid from tissue spaces into

the blood stream. This change in the dynamics of the circulation may be temporary, but while it occurs it is harmful, for it increases the work of the right side of the heart and affords a clear-cut example in which rest of the entire body makes one particular part of the body (the right side of the heart) work more. When the right side is able to respond to the increased burden, it delivers more blood into the pulmonary circulation. Difficulty may now arise if the left ventricle is not able to expel or to receive this added volume of blood per unit of time. In cases of left ventricular failure, pulmonary congestion may grow worse because of the inability of that side to keep pace with the right side. The same may be true in cases of marked mitral stenosis, for the added blood may not be able to flow through the narrow valve and will back up into the left auricle and pulmonary vessels.

To be sure, the above changes do not, in most cases, result in any appreciably harmful effects. Other therapeutic measures that are being carried out simultaneously, such as digitalis administration and diuretics, are sufficiently effective to undo and mask the slight untoward influences. On careful observation, however, it will often be noted that cardiacs become slightly worse for a few days after being put to bed, before they begin to improve. Some years ago I made a few casual observations on the vital capacity of the lungs and the velocity of blood flow just before putting cardiacs to bed. One or two days later it was found that the former decreased and the latter slowed slightly before real improvement began. This is fairly convincing evidence that for a while the circulation was in a poorer state. It is only when the underlying treatment of the cardiac condition is not very successful that we see the gross evidence of the harm done by rest in bed. We may then see a patient become more and more breathless or develop definite hydrothorax, not present a few days before when he was ambulatory. Often the physician erroneously assumes an optimistic attitude because of the oedema of legs has disappeared, when as a matter of fact, the fluid has merely shifted from the legs, where it was harmless, to the lungs, where it was suffocating the patient.

It is curious that the medical profession and the laboratory investigators have been so slow in appreciating these deleterious effects of rest in bed. Our patients have always been aware of them. Many have constantly told us that they felt quite comfortable during the day while they

were up and about, but dreaded the night. They were in distress only in bed, some even being able to do their customary work during the day. Furthermore, they almost invariably insisted that when they become short of breath in bed, relief would be obtained by sitting straight up with their feet hanging down, or by getting out of bed and walking around. With equal emphasis we would insist that they remain in bed and did make them tolerate their distress by the hypodermic use of morphia. Although, no doubt, other factors may be involved, the first obvious inferences from these clinical experiences is that the posture of the patient and the effect of gravity on the circulation must be most important in the production of these distressing symptoms.

The foregoing considerations do not apply to all types of heart disease. When the element of congestive failure or imbalance of the two sides of the heart are not involved, rest in bed in the recumbent position will have none of these ill effects. They do not militate against bed rest for active rheumatic fever, acute rheumatic heart disease, subacute bacterial endocarditis, acute coronary thrombosis (in the absence of pulmonary edema), angina pectoris and many other cardiovascular conditions. It does not follow that bed rest is even necessarily indicated in all these states, but the absence of the threat of serious pulmonary congestion renders inapplicable the effect of the changes in dynamics that follow recumbency. We, therefore, have to analyze the problem carefully to see whether the burden put on the pulmonary circulation by the recumbent position can be well tolerated and to weigh the various advantages in the entire program of rest in bed.

Entirely apart from the effect on the heart, prolonged treatment in bed involves other possible hazards. The most serious of these is phlebothrombosis and pulmonary embolism. All physicians are becoming more and more aware of the alarming number of deaths that result from this complication in all sorts of patients who have been hospitalized and confined to bed for one reason or another. This problem has been emphasized quite recently by Dock. It applies not only to post-operative cases, young and old, but to all sick patients who are bed-ridden for any appreciable time, and particularly to cardiacs and to the elderly. Many a case of heart failure is put to bed with a resultant temporary improvement of his cardiac state, only to suffer greater disability during his "convalescence" or to succumb as a result of a phlebothrombosis of the deep veins of the legs and fatal pulmonary

embolism. This serious complication is more likely to occur if the patient is very immobile or debilitated, if there is abdominal distention producing pressure on the pelvic veins, if the circulation is slow and if the patient has required sedatives for discomfort or pain.

Other complications of prolonged strict confinement in bed may be the development of hypostatic pneumonia, atelectasis of the lungs, bed sores, rarely renal stones and bladder difficulties. Men frequently find it impossible to urinate and require catheterization, with its hazard of infections. Some elderly individuals with prostatic hypertrophy, who previously were able to void, develop urinary retention. These difficulties might have been avoided if they had been allowed to stand up to urinate. Finally, the economic and psychic consequences of prolonged confinement in bed often are disastrous when they might have been avoided or mitigated by shortening the program of rest. Many patients with acute coronary thrombosis or slight congestive heart failure are kept away from work for many months when a much shorter period would have been adequate. They never return to any useful occupation or are relegated to some inferior position with devastating effects on the morale and sociologic position of the patient and his family.

It is possible to avoid some of the undesirable consequences of bed rest in the treatment of heart disease. The ordinary bed may be made to tilt downwards from head to foot by placing 9-inch blocks under the head posts. In this way the effect of gravity may tend to diminish the tendency to increase the return flow to the right side of the heart in cases where pulmonary congestion is the main hazard. At times a period of rest in a chair is preferable to confinement in bed, and may prove life saving. Many cases, especially of primary left ventricular failure, are better treated if during the period of rest they are allowed to sit in a chair for a good part of the day and to walk around the room for short periods, using the inclined bed to sleep in at night. Even when patients are kept in bed, it often is wise to permit them to go to the bathroom or to use a commode for bowel or urinary purposes. When a period of confinement in bed is employed, leg exercises and other methods of preventing peripheral thrombosis should be instituted in appropriate cases.

Conclusion

There is both clinical and laboratory evidence to support the belief that rest in bed may pro-

duce harmful effects, particularly in certain cardiacs. The recumbent position causes changes in the dynamics of the circulation that may greatly embarrass the circulation in patients with actual or threatened pulmonary congestion. Phlebothrombosis and pulmonary emboli are frequent complications in patients confined to bed. These and other considerations need serious attention in outlining a course of rest treatment for patients with heart disease."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

COMMUNIQUE

April 20, 1945.

To the Editor:

Nice bait—your last message, mentioning so important an inclusion as "Don't Change the Name" and then not putting it in. Have enjoyed all your letters and Random Thoughts in The Journal. Hear occasionally from Gus Ca-zort and H. Fay.

My own job is pleasant but permits no loafing at all. We have 660-bed hospital, thousands of officers and dependents at ATSC (World Headquarters), a good many enlisted men and some 40,000 civilians who are eligible for treatment of line of duty industrial dermatoses. Last month over 400 consultations with the in-patients.

Must stop now, as some lousy (literally) brass hat is clamoring for relief. Hope to get the forgotten (?) inclusion. Thanks and luck.

Ellis P. Cope, Capt., M. C.,
AAF Regional Hospital,
Patterson Field,
Fairfield, Ohio.

COMMUNIQUE

May 1, 1945
Germany

To the Editor:

Arrived on the continent a few weeks ago. Was lucky to get to Paris so soon,—quite a place. Have also seen Luxemburg. Haven't done any work yet, but as we are moving up, expect to soon. Snowing today. Looks like the war is about over here.

Wm. B. Connolly, Capt., M. C.

COMMITTEE REPORTS

As Presented to Council April 22, 1945

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

T. T. ROSS, Chairman

There was no unusual incidence of any particular diseases during 1944 with the exception of influenza and meningococcus meningitis. 131 cases of meningitis occurred in 1944 against 127 cases in 1943. The incidence of this disease in each of the past two years being equal to, or higher than, that for the entire five previous years. 18,485 cases of influenza were reported in 1944 against 10,043 in 1943. A mild epidemic of this disease began in the latter part of 1943 and extended into the past year. The number of cases of poliomyelitis dropped from 77 in 1943 to 44 the past year.

The following diseases show a decrease in the number reported in 1944 as compared to 1943: chancroid, chickenpox, German measles, mumps, pneumonia, poliomyelitis, smallpox, syphilis, and whooping cough.

Those diseases showing an increase in 1944 over 1943 are: cancer, diphtheria, influenza, malaria, measles, scarlet fever, septic sore throat, tuberculosis, and undulant fever.

There was no significant change in the incidence of gonorrhea and meningococcus meningitis.

Six-year tabulation of births and deaths with ratio per thousand:

	1944	Previous 5 years
Births	22.6	22.6
Deaths	7.7	8.9
Tuberculosis (all forms)	.4	.5
Infant Mortality (per live births)	32.0	40.5

Venereal Disease Control

During the year 1944, venereal disease education, as well as other venereal disease control efforts, have been intensified and improved in the extra military and industrial defense areas.

Case finding and epidemiology has been and is being improved through the establishment of the Central Registry, the multiple epidemiological form and the present staff of ten full-time epidemiological workers.

Diagnosis and treatment has been improved through the establishment of a Cooperative Program between the Arkansas State Board of Health and the U.S.P.H.S. Medical Center in Hot Springs, Arkansas. Volunteer and committed or quarantined infectious cases of venereal disease, as well as suspects, may now be isolated in the Medical Center for diagnostic and treatment purposes. Three station wagons have been

employed to provide transportation to the Medical Center for indigent volunteer and committed cases. Culture facilities in the diagnosis of gonorrhea have been extended to four major defense areas.

During 1944 an average of 78 diagnostic and treatment state affiliated clinics were maintained; 40 part-time clinicians directed and supervised the clinics; 3 full-time lend-lease physicians directed V. D. Control activities in defense areas, one full-time clinician continued his services in a defense area.

Venereal disease education has expanded throughout the state. Advanced V. D. Public Information Programs have been established in the Greater Little Rock and Fort Smith, Arkansas, areas.

During 1944 the following disease and number of cases were diagnosed and treated:

	State Clinics	Physicians	U.S.P.H.S. Medical Center	Totals
Primary and Secondary Syphilis	1,282	471	322	2,075
Early Latent Syphilis	3,255	53	540	3,848
Late Latent Syphilis	3,343	373	0	3,716
Congenital Syphilis	262	4	61	327
Not Stated Syphilis	581	314	0	895
Neuro & Late Latent Syphilis	0	0	935	935
Syphilis Total	8,723	1,215	1,858	11,796
	State Clinics	Physicians	U.S.P.H.S. Medical Center	Totals
Chancroid	100	3	62	165
Lymphogranuloma venereum	83	0	71	144
Granuloma Inguinale	37	0	27	64
Gonorrhea	3,463	1,537	1,113	6,113

Tuberculosis Control

The Division of Tuberculosis Control has expanded its operating facilities by the addition of a new 35 mm. Westinghouse condenser discharge type of X-ray machine. This X-ray equipment is being transported in a Dodge truck donated to this department by the Arkansas Tuberculosis Association. Additional equipment is assured by an outright grant to this division of \$16,000 by the Commonwealth Fund. It is hoped that by means of funds derived from the U. S. Public Health Service, through its division of tuberculosis control, an additional mobile X-ray unit may be purchased, giving the state department a total of four units, each of which is to be self-contained in a van type truck and operating on such current supply that they may go into any community where the standard house current electricity is available. With this amount of equipment it would be possible to hold diagnostic X-ray clinics in each county in the state, at least once every two months.

In cooperation with the county tuberculosis associations and the county health departments, two unusual pieces of work have been done. After approval by the Sebastian County Medical Society, a tuberculosis diagnostic survey of

all the industries in Sebastian County was done, results of which will be released at a later date. The city of Pine Bluff, with the backing of the Jefferson County Medical Society and under the sponsorship of the Jefferson County Tuberculosis Association and the Jefferson County Health Department, passed a city ordinance making it mandatory that an X-ray examination of the chest be included as a specific portion of every foodhandler's health certificate. Approximately 1,200 foodhandlers in this city have been X-rayed to date. These two types of endeavors have proven feasible both from the public standpoint and to the satisfaction of the medical profession.

Special emphasis is being put on the protection of school children by the X-raying of their teachers, a program which has been wholeheartedly entered into by the Arkansas State Department of Education. The general diagnostic program with special emphasis on the routine and periodic X-raying of contacts to known cases of tuberculosis is being continued.

A very pleasant cooperative program is being carried out with the Division of Industrial Hygiene and the Arkansas Medical Society Committee on industrial hygiene.

Maternal and Child Health

A large number of applications for service under the Emergency Maternity and Infant Care Program continued to be received. 10,846 applications had been approved since the inauguration of the program. 7,682 cases were approved during the calendar year of 1944.

The average cost of a completed maternity case during the last quarter was \$90.84, of this the hospital received \$43.31 and the physician received \$47.53.

The 227 infant cases closed during the year cost \$7,886.18, or an average of \$34.74 per case.

In the regular program antepartum medical services continued to decline, but nursing services to maternity and infant cases, especially to patients of private physicians, was greater than it has ever been in spite of shortage of personnel. Preschool and school services were still much less than before the war.

Nutrition Service

The Nutrition Service has presented new nutrition information and teaching materials to both local and state public health personnel.

Well child conferences, all types of clinics, civic group meetings, schools, school lunch programs, homes, and mothers' classes have been visited in order to discuss food in relation to

health and assist with special food problems.

Six nutrition clinics were planned through local health departments and conducted by Dr. Walter Wilkins, U. S. Public Health Service. People showing signs of poor nutrition were presented and causes and prevention discussed. Other groups interested in nutrition education attended the clinics in order to learn some of the medical aspects of the program. Pictures have been made of the mild signs of poor nutrition which have been observed in Arkansas. They are being shown and explained to various groups such as school children, P.T.A., civic organizations, etc., in order to point out the importance of food to good health.

The Hygienic Laboratory

The Hygienic Laboratory in 1944 examined 194,134 specimens. In addition to the bacteriological and serological work, the shipping division kept inventory of and mailed out such drugs and biologicals as have been used by the county health units. As in 1943, the greatest number of examinations was made for the detection of venereal disease, i. e., serological tests for syphilis and smears and cultures for gonococci. During the last half of 1944 the laboratory made 1,636 cultures of material for gonococci. While gonococcus culture work is limited to Pulaski County because a satisfactory method of culturing specimens sent by mail has not yet been devised, these cultures have been of especial value in diagnosing chronic and treated cases.

The Serology Department was given a satisfactory rating in the annual Syphilis Evaluation Survey made by the U. S. Public Health Service. A representative of the Public Health Service also surveyed the methods used in this laboratory in the bacteriological examination of water samples, making a favorable report.

Malaria Control

During 1944 the department operated a malaria control program in 67 zones throughout the state. Seventy-four war establishments, defense plants and housing areas for war workers were in the control zones and it is estimated that a total of 400,000 people were protected by this work. The control work was carried on over a territory of 440 square miles at a total expenditure of \$300,000.

An extensive mapping program was started in ten counties in the eastern section of the state, spotting the location of the houses preparatory to spraying the interiors with the new chemical, DDT, as a control measure to protect the civilian population in these counties from the possibility

of new infections which may be brought back by the returning soldiers. It is estimated that the interior of 50,000 houses will be sprayed in the ten counties.

Division of Industrial Hygiene

The Division of Industrial Hygiene continued and expanded the industrial health program already organized. In addition to surveys being made, several studies in larger plants were carried out. Also in cooperation with the Tuberculosis Control Division chest X-ray clinics were held in several of the larger plants. Increased interest in public health in industry was shown by the increased number of requests made to this division by management, labor, and labor unions, and the promptness in which recommendations were carried out; also requests for consultations in regard to public health problems.

Since additional funds will be available, we hope to expand this program considerably during the next year.

COMMITTEE ON MATERNAL AND CHILD WELFARE

S. A. THOMPSON, Chairman

There have been no major items to come within this committee's functions the past year, so there have been no meetings.

The aid to service men's wives and babies is functioning smoothly in a general way. The main objection is that it is more or less state medicine. The State Health Department is cooperating in avoiding this phase of the work as much as Washington will permit.

Director Rothert has consulted the chairman at frequent intervals on matters over which either might have jurisdiction.

Publication in The Journal of a series on these activities has been referred to an obstetrician and a pediatrician of this committee for their approval.

When the war is over many of our members in the service, as well as those who served at home, will need, and want, refresher courses in order to catch up with recent advances in pediatrics and obstetrics.

COMMITTEE ON PUBLIC RELATIONS AND MEDICAL SERVICE

H. A. HIGGINS, Chairman

Your committee appointed to study the problems and progress of public relations and medical service has devoted its efforts largely to the study of prepaid medical and surgical care and has at length considered all available data inso-

far as its ability permitted. We find that a few state medical societies, especially in the states of California and Michigan, have conducted an exhaustive and expensive survey in an effort to determine the attitude of lay population in reference to federal controlled medical practice, prepaid medical service controlled by the medical profession and/or continuation of the present method of operation and the reasons therefor. This survey has been conducted by a sampling of a sufficient portion of the population of these states, tabulating such reports into groups such as professionals, employers and employees, and also into groups relative to their income bracket in which they fall. It has been determined that approximately one-half of the total definitely have favored a change in our present system, while some 15 per cent are undecided, leaving approximately 35 to 40 per cent who expressed satisfaction with our present system. Those who expressed themselves as not being satisfied with the present system gave as a definite reason that medical service costs too much, and the lower the income group one considers the higher the percentage of unsatisfied people. Thus, it is reasonable to assume that in this state where the average income is much lower than in those where the survey has been conducted that the percentage of those not satisfied is to be found increasingly greater. It seems evident by the surveys that most people prefer some system of prepaid medical and surgical care controlled by the medical profession rather than a federally controlled profession supported by taxation. Many state medical societies have entered into experiments in the field of prepaid medical and obstetrical service, a few have attempted prepaid care of medical cases while confined to a hospital, and in a few, very few, instances has the overall inclusion been made of surgical and medical care in hospitals, offices and homes. It is evident that people want, and it would be ideal if the entire expense of complete professional and hospital care could be pro rated and prepaid, but in the consideration of such an accomplishment one necessarily enters into the field of "wishful thinking."

The study made by this committee definitely shows the fact that progress made in the field of prepaid service has been made on the basis of coverage of occupational groups and by salary deductions handled in most instances by the employer instead of individuals, thus eliminating the prohibitive administrative details and expense of handling persons in general as individuals. In Arkansas herein lies our first and

serious handicap for the reason that Arkansas is predominantly an agricultural state with few and small industries, and most individuals who especially need the benefits of prepaid service can only be handled as individuals for whom no pay deduction is available.

It is manifestly evident that "wishful thinking" does not approach the primary requirements of launching a far reaching program as extensive and financially dependent as prepaid medical care. In addition to a plan on paper it requires the tremendous organization of administrative facilities and an adequate amount of money. In other words, the operation of any state-wide plan must be financially underwritten by somebody, either to guarantee professional service or to make the payment for such service. Considering the idea of physicians underwriting the service, one should first ask this question: In Arkansas will the doctors, all of them, agree and guarantee, stick to and abide by the agreement, to render the professional service regardless of payment in event the plan should not have funds available to pay in full therefor? If they should so underwrite such service and in a comparatively few cases fail to willingly render satisfactory service without satisfactory remuneration therefor, it would bring discredit upon all the profession, and let it be borne in mind that the patient is far more demanding in his needs for service if it is not expected of him to directly liquidate the expense from his individual funds. The Committee does not believe that the idea of physicians underwriting the service is economically sound, especially where many physicians from various environments and with different viewpoints are involved. Therefore, any plan would require underwriting financially in terms of dollars and cents. Then the question naturally arises, can the medical profession of Arkansas financially underwrite any state-wide plan supplying a sufficient amount of funds to meet the requirements of law, liquidate the claims for professional service and care for the administrative expense involved? To this question the Committee is of the opinion that physicians who are not experienced in the underwriting business would rightfully hesitate to subscribe funds in a sufficient amount without any assurance of the return of the funds, and as such funds would necessarily need be on the basis of a loan without security we do not believe it is good policy to ask physicians for such a loan, and we are quite certain funds would not be available from other sources on the basis of a loan without satisfactory security.

This Committee believes the only possible source of accomplishment of any prepaid medical and surgical plan in this state with any reasonable hope of success lies in the already established facilities and finances of the several insurance companies. We know of no organization at this time willing to embark upon the untried sea of prepaid medical service. However, many insurance companies have entered into the field of prepaid surgical and obstetrical service, and as we understand, are accumulating actuarial figures and data looking to the ultimate establishment of service in prepaid medical care as well.

We agree that continued study, evaluation of the experience of those in a position to conduct experimentation and the assembling of actuary figures is a needed activity and has reasonable hope of bearing fruit profitable to both profession and the laity in the future.

This society should conduct such educational activities, both for the laity and for its own membership, as is possible, looking to the acceptance and understanding of any plan that may become available and desirable, and the cultivation of a spirit of cooperation one with the other to the end that finally an offensive movement may be made to combat the threatened federal control of the profession and its activities, and into this cooperative professional group should be included the allied activities of the profession, such as hospital management, druggists, pharmaceutical establishments, dentists and nurses. That we are unalterably opposed to federal controlled medicine under the Wagner Bill, its kin, successors, or descendants, need hardly be stated. We recognize defensive action is rarely effective, but until the time arrives when the medical profession of Arkansas can march forward with a program predetermined and predestined to have at least a better than even chance to succeed, we recommend an unrelenting defensive battle against the enemies of medicine as a free enterprise, supplemented as soon as possible by an offensive action.

This Committee recommends that the primary groundwork forged by it be expanded; that the society conduct such educational activities for both laity and profession as is possible; that it continue combat with the foe of medicine as a free enterprise, and that the several established companies already engaged in the enterprise of underwriting be brought into conference and study, looking to the establishment of a means of pro-rating the cost of medical and surgical

care, thus removing the chief underlying cause of dissatisfaction which is accurately and statistically known to be the sudden and unprepared demand upon the financial resources of the patient in event of illness.

LIAISON COMMITTEE OF THE ARKANSAS MEDICAL SOCIETY WITH THE ARKANSAS TUBERCULOSIS ASSOCIATION

A. C. SHIPP, Chairman

We have kept in close contact with the work of the Arkansas Tuberculosis Association during the past year and there has been at all times the most friendly relations between the two groups.

Some counties in which there were a large number of industrial employees were anxious for an X-ray survey of the counties. In order to assist in formulating plans for these surveys meetings were held with representatives of the following groups: State Medical Society, County Medical Society, State Tuberculosis Association, County Tuberculosis Association, Committee on Industrial Health, the State Health Officer, and the Director of the Division of Tuberculosis Control. The groundwork for the survey was done by the local health officer and the executive secretary of the Tuberculosis Association. A number of other counties have asked for the same type of survey, and it is hoped that these surveys can be offered to other counties the coming year.

Largely through the efforts of the Jefferson County health officer, the County Tuberculosis Association, and representatives of the Medical Society, a city ordinance was passed requiring X-ray examination of all food handlers. The State Health Department sent its mobile unit into the county to do the survey, and 1,437 food handlers were X-rayed at the first clinic. The number of active cases found as the result of this survey more than justifies the expense and the amount of work involved. We hope that all interested groups in other cities and towns will work towards the passage of similar ordinances.

A joint committee meeting of representatives from interested groups was held and the bill was drafted to require X-ray examination of all school personnel in the state. The bill was placed on the calendar, but because of a last minute rush, the author of the bill failed to get it up for passage.

The same committee group lent its assistance to the passage of the bill to get additional bed facilities at the Negro sanatorium. As a result

a bill was passed and has been signed by the governor which will give the institution 324 additional beds or a total of 520. This will very materially help the tuberculosis situation in the state, since there is a waiting list of approximately 500 for the available beds at the institution, and until these far-advanced cases can be removed from the homes and hospitalized they constitute a very serious public health menace in their communities.

Many of the counties in our state have been without public health personnel for some time. Our local doctors have made a splendid effort to meet this need whenever possible. Some of the counties were particularly concerned over the tuberculosis situation and, upon invitation from the county medical societies, the Arkansas Tuberculosis Association assumed the responsibility for conducting a case-finding clinic. Following several weeks of intensive educational work on the part of this association, the mobile X-ray unit of the State Health Department went into the county and conducted an X-ray clinic.

Preliminary skin testing was done in the primary and high school groups in the schools. These county clinics were confined to the following groups. All industrial employees, food handlers, beauty shop operators, school personnel, including bus drivers, janitors, and cafeteria workers, all contacts with known cases of tuberculosis, and the parents of the positive reactors in the primary group. These clinics were held in Pike and Poinsett counties.

In order to provide transportation for one of the X-ray units of the State Health Department, the Arkansas Tuberculosis Association, with funds derived from the sale of Christmas Seals, purchased a truck for the State Department, and this unit is now in service in the counties of the state.

COMMITTEE ON SYPHILIS CONTROL

D. W. GOLDSTEIN, Chairman

Your Committee on Syphilis Control reports as follows with recommendations:

The general policy of the Venereal Disease Section of the State Department of Health under the Venereal Disease Control Officer, Dr. Edgar Easley, has carried out a very definite program.

The Central Office, Division of Venereal Disease Control Personnel, consists of a Director and a clerical staff of three. The staff also included one Educational Director and one Transportation Officer who transports venereally infected individuals to the USPHS Medical Cer-

ter, Hot Springs, Arkansas, from various points in the state for isolation or quarantine treatment. The position of consultant nurse is still vacant.

The eighty-three diagnostic and treatment clinics throughout the state are directed, supervised, and conducted by forty part-time venereal disease clinicians. However, most of the part-time clinicians are of the older age group (50-70) years. The clinic periods vary in number from one to six sessions weekly.

The Educational Department under Roy Reid, Educational Director, has done outstanding work on the education of the public. If he has not conducted an Educational Campaign in your community, an effort should be made to have him do so. He is tactful and can go before any group.

The following statement in a recent article, "The Chemotherapy of Syphilis," by Dr. Joseph Earle Moore,¹ shows the present status of the treatment of syphilis. "Some years ago I was so misguided as to have joined the long ranks of doctors who had written books on the treatment of syphilis. I was sufficiently bold, eleven years ago, as to entitle my own effort 'The "Modern" Treatment of Syphilis' (the italics are new and ironical). Today, my own book and the many which preceded it are of historical interest only; and when now the question is asked, 'How do you treat syphilis?' my answer is, 'I don't know, but in company with many others, I'm trying to find out.'"

Since the report by Mahoney, Arnold and Harris that penicillin is effective as a chemotherapeutic agent for early syphilis, the members of the medical profession who treat syphilis, whether early or late, are confronted with the question, "How should I treat this case?"

Your committee recommends that the treatment of syphilis be continued for the present as outlined by the cooperative group, remembering that any shortening of the time interval of the administration of arsenicals increases the toxicity of the drug. We also suggest that before treating gonorrhea with penicillin the patient be cautioned that he may have syphilis also. By the administration of penicillin the symptoms of syphilis may be masked. Serological tests for syphilis should be made before treatment, also repeated each month for three months after treatment of gonorrhea with penicillin.

We have had cooperation from the army in case-finding by reporting contacts. After the

war this will cease. Every physician treating venereal disease should develop a technique in taking a contact history.

We should report venereal disease as we do any other contagious or infectious disease. We should so inform ourselves on syphilis that we can lend our aid to passing such laws as prenatal and pre-marital. We recommend that every society have a program this year on venereal disease control.

We wish to endorse the venereal disease program of the State Health Department.

COMMITTEE ON INDUSTRIAL HEALTH ARKANSAS MEDICAL SOCIETY *

A. D. CATHEY, Chairman

In the few years during which our Society has been seriously considering and accepting the importance of industrial health measures and activities as applies to our state, your previous Committee on Industrial Health has outlined a very admirable and comprehensive program. We, your present committee, would like very much to see this program followed as completely as possible.

Among the more important recommendations were those made by Dr. Orlen J. Johnson, Council on Industrial Health of the American Medical Association, on his visit to this state in December, 1942. Because of the difficulty of being away from urgent professional duties and of restrictions on travel, it is impossible to follow this suggested program very closely at the present time; but they should not be forgotten and when conditions permit, should be followed more completely. They are as follows:

1. That industrial health be included in a program of the state medical society.
2. That those counties in our state which have industry should devote one or more meetings a year to industrial health. He suggested that the state society set up a Speaker's Bureau to provide programs for county societies.
3. That institutes or conventions be held in some of the cities.

Early in 1944, after careful study by your committee, headed at that time by Dr. E. E. Barlow, and in collaboration with Dr. A. C. Curtis, Director, Division of Tuberculosis Control of the State Board of Health, there was instituted the very important work of mass X-ray surveys in industry. This important work has been continued by Dr. Curtis. A summary of this work will

(1) Vol. 29 No. 2 page 185 American Journal of Syphilis, Gonorrhea and Venereal Disease.

* Preliminary report. Final report will be presented to the Council for consideration.

be included in a report from Captain William A. McQuary, who is a Sanitary Engineer, furnished by the United States Public Health Service to work with our State Board of Health in the interest of industry.

Captain McQuary's report is as follows:

The Division of Industrial Hygiene, State Health Department, was provided by law when the Arkansas Workmen's Compensation Act was passed and became effective December 5, 1940. It was created under the authority given the State Health Department by the Arkansas Workmen's Compensation Act, No. 319, Section 42:

"A * * *. There is hereby created in the Department of Health an Industrial Hygiene Division, which shall perform the following duties:

"1. Make surveys to determine the existence and prevalence of occupational disease hazards within the state.

"2. Determine the measures necessary to eliminate or reduce such hazards.

"3. Report all findings to the Commission of Labor for their use in recommending rules to the Industrial Board.

"The expense of said Industrial Hygiene Division of the Department of Health shall be paid from the Workmen's Compensation Fund when proper appropriation has been made therefor."

Funds and personnel for operating this division have been furnished by the U. S. Public Health Service. Appropriation for the continuance of this division was made at the last legislature when \$10,560 was appropriated for the fiscal year 1945-46, and \$10,920 for the fiscal year 1946-47. This appropriation, together with the Title VI funds and lend-lease aid from the U. S. Public Health Service, will enable us to carry out a well-rounded industrial hygiene program.

The services which we have attempted to maintain in industry in the past are as follows:

1. Consultation and assistance in instituting and improving medical programs in industry. The industrial medical program recommended by us consists briefly of advice on pre-placement and periodic medical examinations, immunization programs, medical facilities and first aid.

2. Surveys, visits and inspections of plants in regard to specific industrial and occupational hazards, are carried out. These surveys and visits are made either at the request of management, labor unions, the State Labor Department, Workmen's Compensation Commission or at the initiative of personnel of this division.

3. If conditions warrant a further study, then atmospheric samples of dusts, fumes, mists, gases and vapors are obtained and these samples are analyzed chemically to evaluate the corresponding health hazards to the exposed workers. In one plant in Hot Spring County three weeks were spent in taking atmospheric samples and analyzing the constituents to see if there were sufficient amount of toxic gases and dust to cause harmful effects upon the workers. There were approximately 1,200 employees in this plant. In two plants in Saline County where approximately 2,500 employees were involved, air samples were taken and chemically analyzed, and dust counts made to determine if there were a silicosis hazard present. At a plant in Union County twenty-five employees were found to be suffering from contact dermatitis. Methods for preventing dermatitis were worked out

and installed in this plant by this Division. A study was made in a plant in Arkansas County to ascertain if silicosis was present. Air samples were taken and made, appropriate means for the elimination of hazardous environment are submitted to the plant management. In several plants in Sebastian County where spray-painting is done we have made studies of the airflow in spray-painting booths and have calculated the flow sufficient to remove the toxic fumes and vapors and recommended the types of exhaust system to be installed, and have aided management in obtaining priorities necessary to make these installations. These are only a few examples of the type of work that is being done.

4. An educational program is carried out in which pamphlets, posters, bulletins, educational talks and films are made available. This material deals generally with public health problems in industry such as annual medical examinations, dermatitis, night work, nutrition, etc. It also deals with specific hazards such as benzol, carbon monoxide and others. More than 8,500 pamphlets, bulletins and posters have been sent out from this division within the past two years.

The Industrial Hygiene Division, working in cooperation with other divisions and bureaus of the State Health Department, carries out a program for the protection of the health of the industrial worker. Not only does it aid in the prevention of occupational diseases but it presents an opportunity for the Health Department to bring directly to this adult group all the facilities of the Health Department, and thus raise the general health level of this important group.

Working in cooperation with other divisions of the State Health Department we have enabled plant management to take advantage of the facilities provided by the State Health Department in making chest X-rays of all employees and also carrying out a venereal disease program within the plant. This division and the Division of Tuberculosis Control has just completed a program of chest X-ray clinics held in industries in Sebastian County. In this clinic the pathological findings were sent to the County Health Officer who in turn sent them to the worker's family physician. The worker then was contacted by the County Health Officer and called into his office for a private consultation at which time he was told that it was necessary for him to consult his family physician for diagnosis and specific instructions. The above program was also carried out in Hot Spring County, Saline County, Arkansas County, Drew County, and Columbia County after the approval of the local county medical society. If this work can be carried out annually, minimal cases of tuberculosis will be found and this will reduce the death rate from tuberculosis and also the hospitalization period and the economic loss to the individual.

We have discovered that a large number of various toxic materials are being used within industry without the use of proper precautions and we have made recommendations that have prevented a large number of occupational diseases due to these materials. In fact, the health of more than 50,000 employees has been involved in plants where recommendations were made by this division.

We hope that this information is what you desire and if we can be of further service, please advise.

By direction of the State Health Officer.

(Signed) WILLIAM A. McQUARY,

Acting Director, Div. of Industrial Hygiene.

We consider this an excellent report and feel

greatly encouraged for the future development of industrial health measures now that we have an organization of trained and capable men upon whom we can depend to assist us in our more difficult industrial health problems.

The industrial physicians and surgeons of this state who are closely associated with the industries they serve should make an honest, interested effort to understand the hazards of the particular industry they serve. By being so informed, we feel that they can render a very helpful and appreciated personal service and advice in the prevention of sickness and accidents. This function, too, can very properly and perhaps more appropriately be performed by the Industrial Health Committee of the County Medical Society where such committees have or will be formed.

There is at present operating in this state a rehabilitation program, known as the Federal-State Program of Vocational Rehabilitation. One of the principal functions of this organization is to restore those who have substantial employment handicaps, to such a state of mental and physical efficiency as to render them suitable for employment in industry.

This organization is administered by the Arkansas State Board of Vocational Education, and your committee has been cooperating with this body in the development of the medical and surgical relief features of the program, which we hope will meet with your approval.

We feel that this organization and its purpose is so vaguely understood by the medical profession that we wish to submit for your consideration the following tabulated information as furnished by the administration of the program:

Vocational Rehabilitation Administered by State Board of Vocational Education

Legal Basis for Vocational Rehabilitation

The vocational rehabilitation of physically disabled persons is provided for by Act 70 of the 1923 General Assembly of Arkansas and by Public Law 113, passed by the 78th Congress, approved July 6, 1943, known as "The Vocational Rehabilitation Act Amendments of 1943." Both laws provide that the program be administered by the State Board of Vocational Education.

Share of Cost—Federal Funds—State Funds

The cost of administration, including salaries and travel of all personnel, is paid 100 per cent from Federal funds. One-half of the expenditures made for case service (services actually

purchased for disabled clients) is also paid from Federal funds. The Federal government is, therefore, providing funds for two-thirds of the cost of the program.

The state pays one-half the cost of case services or one-third the cost of the program.

Who Is Served

The objective of Vocational Rehabilitation is to provide or assist in providing services that are needed to make physically disabled persons suitably employed. Only physically disabled persons who are unemployed or not suitably employed, but who can be made employable or more advantageously employed, are eligible for vocational rehabilitation services. The services are available to disabled persons sixteen years of age or over.

Services Provided

After a thorough survey of each individual is made, including medical examination, school record, aptitude and ability tests, personality and reputation, etc., he may receive any of the following services which he needs and for which he is eligible in preparing himself for a suitable trade or vocation:

1. Medical or surgical treatment (persons whose disabilities are relatively stable and can be removed or materially improved by treatment, are eligible for these services **and then only on an economic need basis**).
2. Hospitalization (not to exceed 90 days **and on an economic need basis**).
3. Prosthetic appliances (braces, artificial legs and arms, etc., **provided on an economic need basis**).
4. Training (trade schools, colleges, on-the-job or employment, and other types of training).
5. Instructional supplies (textbooks or hand tools, **based on economic need**).
6. Maintenance (supplement to client's resources while he is in training—**provided on economic need basis**).
7. Counsel, guidance and supervision by professional vocational rehabilitation workers from the time a disabled person is accepted until he is placed in suitable employment.

No Duplication of Services

Vocational rehabilitation cannot provide any of the above services, which are based on economic need, if there is another agency which will provide the service. (In other words, in this program, there is no duplication of services which are rendered by other agencies.)

Types of Disabled People Served

Many of our citizens are eligible for and in

need of vocational rehabilitation as a result of disabilities caused by diseases, accidents or congenital deformities. The following is a partial list of the disability groups served by this program:

1. The blind and visually handicapped.
2. The deaf and the hard of hearing.
3. Infantile paralysis and spastic paralysis.
4. The loss of arms, legs or the impairment of the functional use of parts of the body.
5. Tuberculosis and heart disabilities.
6. Congenital deformities—speech defects, clubbed feet, etc.
7. The psychoneurotic and other types of mentally ill.

This program is serving those persons in need of vocational rehabilitation services when they are ready for it. Such persons come to our attention through the Crippled Children's Division, State and County Welfare Departments, the Workmen's Compensation Commission, the Schools for the Deaf and Blind, the public schools, the tuberculosis sanatoriums, clinics, hospitals and many other sources.

Source of Funds Justified

Funds for the state's part of the cost of this program should come from Vocational Education funds and from welfare funds. The expenditure from Vocational Education funds is justified because of the vocational training phases of the program and expenditures from welfare funds because of the welfare phases of the program, medical and surgical treatment, hospitalization, prosthetic appliances, maintenance, etc.

Reasons for Requesting Increased Appropriation

1. One reason for the increased appropriation for this program is due to the fact that larger numbers of disabled people need vocational rehabilitation. (The personnel is provided for serving larger numbers of disabled persons. A much larger staff of rehabilitation workers has been employed and is paid entirely from Federal funds.)

2. Another reason for an increased appropriation is due to the fact that other services, medical and surgical treatment, hospitalization, maintenance, etc., have been added and payment for these added services will require additional funds. **These services must be provided if the state is to qualify for the Federal funds for this program.**

3. Many who are discharged from military service with non-service connected disabilities will need this service in learning a suitable trade or vocation. (During the last fiscal year 150 veterans of World War II were served through this

program. If they are eligible for Veterans service and can be served under either the "G. I. Bill of Rights" program or the Veterans' Vocational Rehabilitation program, the state insists that they avail themselves of the Veterans' service before they are given vocational rehabilitation services through this program.)

A Business and Economy Program

Vocational rehabilitation of physically disabled persons is not only a humanitarian program but it is an economy program and is good business. It removes many from the assistance grants administered through the Welfare Department and it prevents many others from ever needing welfare assistance grants.

The combined salaries for the month of December, 1944, of seventeen (17) blind persons who have been rehabilitated was \$1,559.67. These persons, before being rehabilitated, were receiving welfare grants. Had they been receiving welfare grants for the month of December, it is estimated that they would have received \$391 and annually would receive \$4,692. The rehabilitation of these seventeen persons for the trade they are following cost \$1,700. In one year's time there is a saving to the state of \$3,000. Estimating that these seventeen persons will be able, through this trade that they have learned, to support themselves for an average of twenty years, the saving would be \$60,000. The annual salary earned by them would be \$18,716.04, and they would return to the state in sales tax annually, approximately \$280—in twenty years, \$5,600. Since the cost to the state for their rehabilitation was \$850 (one-half the total cost) they would repay, through the sales tax alone, more than six times what it cost the state to rehabilitate them, and in income tax they would repay the Federal government many times what Federal funds were spent in their rehabilitation.

A study of other types of disabled persons who have been vocationally rehabilitated would reveal the soundness of the program from an economic standpoint.

Growth of Program

The number of physically disabled persons receiving vocational rehabilitation services and the number vocationally rehabilitated for the past four years is given below:

Year	Number Receiving Rehabilitation Service	Number Rehabilitated
1940-41	511	151
1941-42	592	246
1942-43	1,147	671
1943-44	1,249	733

Many of those rehabilitated in the years

1942-43 and 1943-44 will return for vocational rehabilitation due to the fact that many were given short training courses for war production jobs, and many were placed in war industries without training. When the war is over they will need vocational rehabilitation for peacetime jobs.

Disabled Persons Now Receiving Vocational Rehabilitation Services

The following will show the number of disabled persons on the rolls of the Vocational Rehabilitation program as of December 31, 1944:

1. Reported cases (to be contacted and surveyed)	992
2. Interviewed (partially surveyed)	952
3. Received rehabilitation services since July, 1944	856

Personnel Employed

In the state office the following personnel are employed to administer and supervise the program:

1. Director of the Division of Vocational Rehabilitation.
2. Supervisor in Charge of Case Work.
3. Supervisor in Charge of Rehabilitation Services for Blind.
4. Supervisor of Physical Restoration (to be employed).
5. Placement Agent for the Blind.
6. Four clerical workers.

The state has been divided into ten areas of approximately 190,000 population and a rehabilitation worker or field agent is assigned to each of these ten areas to contact, survey, counsel and plan individual rehabilitation programs for disabled persons residing in the assigned area. There are three district offices and two local offices out of which these agents work. They are located as follows:

1. District office—Little Rock.
2. District office—Jonesboro.
3. District office—Fort Smith.
4. Local office—Hope.
5. Local office—Monticello.

There is a secretary in each of the district offices and a stenographer in each of the local offices.

There is a total of twenty-three persons now employed, fourteen professional workers and nine clerical workers.

It is the belief of your committee that the Vocational Rehabilitation program, as above described, is worthy of our constructive study and cooperation. We believe it not unlikely that the program will become more and more expanded. At the present time, you will note that the re-

habilitation organization does not agree to serve if there is another agency which will provide the service; but we believe it not unlikely that eventually we will have need for a rule to determine, or an agency to decide, whether or not a given case should be rehabilitated through the State Welfare Department, for which the doctor is paid nothing by the Welfare Department, or through the Federal-State Vocational Rehabilitation Organization, for which he will receive pay for his rehabilitation service to the amount specified by a fee schedule.

I believe that the vocational rehabilitation management is forming or will form in the near future a committee to work out some specific details and agreements for the purely medical and surgical features of the program. This committee, I believe, is to be composed of physicians representing the medical and surgical specialties, a representative of the nursing profession, and a hospital administrator. No doubt some mistakes have been made or will be made; but if unfair, we believe they will be corrected. There may not be universal approval of the program, but if it can be expanded and perfected to the degree apparently possible, we believe that the greater part of the profession would regret to be without it.

RESOLUTION

Dr. William Turner Wootton, a member and past president of the Arkansas Medical Association, and at the time of his death President of the Southern Medical Association, after several months of intense suffering passed to his reward May 2, 1944.

Dr. Wootton was born in Poolesville, Maryland, April 12, 1878, the son of a physician. He graduated from the medical department of the University of Maryland in 1899 at the age of 21 years. After service in the United States Army in the Philippine Islands, he returned to the United States and began practice in Hot Springs, Arkansas, in 1903.

Dr. Wootton was greatly beloved by the members of the state Society because of his genial personality, his loyalty and his friendly spirit. He was early recognized as a leader in his profession, not only because of his skill, but because of his genuine interest in the medical profession. He stood for the highest ethical standards and exerted a strong influence in raising and maintaining these standards. He was tireless in his

efforts to keep Arkansas ever in the forefront of medical progress.

In the capacity of President of the state Society and as a member of the Council, Dr. Wootton rendered invaluable service over a period of many years. His ability was recognized not only in Arkansas but throughout the nation, and his election to the Presidency of the Southern Medical Association was a well-deserved honor and one in which the state Society shared.

He counted his friends by the score and his passing brought genuine relief to the entire membership of our Society. He will be missed greatly at our state meetings, for he was often the first to arrive and the last to leave.

The Council in session assembled at the Albert Pike Hotel, Little Rock, Arkansas, April 22, 1945, hereby expresses its appreciation for the great and noble life of William Turner Wootton, acknowledges its gratitude for what he contributed to the progress of medicine and extends to the members of his family heartfelt sympathy.

RESOLUTION

Whereas, in the course of human events our esteemed colleague, Dr. Fergus O. Mahony, has been removed from our Society, we, his brethren, mourn.

Whereas, Dr. Mahony was a lifelong member of the Union County Medical Society and of the Arkansas Medical Society. In these societies he held all the different offices including that of President of the Arkansas Medical Society. His loyalty and counsel had much to do with the high standards it has attained.

Whereas, his tenets of medical ethics, and his readiness to answer the call of the poor and distressed are an example to us,

Now, be it Resolved, that the members of the Arkansas Medical Society emulate his virtues and express to his family sincere sympathy, that a copy of this resolution be sent to the family, one spread on the permanent records of this Society, and one published in The Journal of the Arkansas Medical Society.

RESOLUTION

Whereas, our Lord and Master has by His omnipotent power removed our beloved Dr. Clyde McNeil, of Rogers, Arkansas, taking him on that journey from whence no one returns, it therefore becomes the painful duty of the Council of the Arkansas Medical Society to write resolutions of respect and to extend condolences to his bereaved family. Dr. McNeil was born at Rogers,

September 18, 1892, and died November 24th, 1944, after making a late night call, returning to his home tired but without warning that this was to be his last mission in the relief of suffering humanity. Dr. Clyde McNeil was a loyal member of the Benton County Medical Society and spent his career trying not only to be ethical, but trying to inspire higher ethics in all physicians. He was faithful to his friends. He was regular in his attendance at the meetings of his county medical society and of the state society. He was a member of the Council from 1937 and at the time of his death, was the Chairman of the Council. He became a Fellow of the American College of Surgeons in 1934.

Therefore, Be It Resolved that the Council of the Arkansas Medical Society record itself as expressing its deep sorrow in the passing of Dr. McNeil and that a copy of these resolutions be printed in The Journal.

RESOLUTION

Whereas, an All Wise and Divine Providence has seen fit to remove from our midst, our ever-faithful friend and colleague, Sidney J. Wolferman, it is proper that the Council of the Arkansas Medical Society adopt resolutions of respect for our departed fellow practitioner. Dr. Sidney J. Wolferman was born in Streator, Illinois, and received his degree in medicine from Northwestern University School of Medicine in 1911. He located at Fort Smith in 1914 and was one of the organizers of the Cooper Clinic in 1920. He was a loyal supporter of organized medicine during his entire professional career, a faithful member of the Sebastian County Medical Society, in which he had held all the offices. He served as a member of the Council from 1932 to 1938 and was its Chairman in 1936-37 and served as President of the Arkansas Medical Society in 1938-39. He served one term of five years as Arkansas Councilor to the Southern Medical Association. He was ever ethical, loyal to his friends and tolerant with those who differed with him.

Therefore, Be It Resolved by the Council of the Arkansas Medical Society this twenty-second day of April, 1944, that we express to his loved ones that their loss is our loss and that a copy of this resolution be printed in The Journal of the Arkansas Medical Society.

RESOLUTION

Whereas, the Phillips County Medical Society, by the death of Dr. W. C. King, has lost one of

its outstanding members who for over 40 years was a true and tried member, Resolved, that the community and the society will miss his good citizenship and his high qualification as a physician.

Born in Henderson, Kentucky, in 1877, he attended the schools of that city, the University of the South and the Hospital Medical College in Memphis, graduating from this institution in 1891 and locating in Helena soon afterwards, where he practiced his profession until his untimely death. He was markedly successful in his specialty (internal medicine). He was also a member of the Arkansas and American Medical societies and was President of the Phillips County Medical Society in 1944. In his will he bequeathed memorial funds to Episcopal Church, the Helena Orphans Home and his alma maters. He is interred in Helena Cemetery by the side of his wife, who preceded him six years ago.

Resolved, that a copy of these resolutions be placed on our records, sent to his surviving relatives and to the Arkansas and the American Medical societies.

OBITUARY

WILLIAM THOMAS THORN, age 72, Marked Tree, died May 1st. Born in Brownsville, Tennessee, he had practiced medicine in Monette for 39 years prior to his removal to Marked Tree in 1941. He was a member of the Masonic lodge, the Lions Club, the Methodist church and was a patron of the Eastern Star and an honorary member of Boy's Town. Surviving relatives are his wife, three daughters and a son.

NORRIS CECIL HODGE, age 45, died suddenly at his home in Marianna April 21st. Born in Oxford, Mississippi, he completed academic studies at the University of Mississippi and received his degree in medicine from the University of Tennessee College of Medicine in 1926. He was secretary of the Lee County Medical Society at the time of his death, a fellow of the American Medical Association and had formerly served as a medical officer in the Arkansas National Guard. He was president of the Farmers and Merchants Bank of Marianna. Surviving relatives are his wife and two sons.

COMMUNIQUE

April 27, 1945.

To the Editor:

Your April "Random Thots" reached me a day or two ago. Apparently you do not know where I am and neither do I, that is, as far as assignments go. Have been putting off this note in the hope that I would have a permanent change of address to send. The days are dragging into weeks, so maybe it is time to report in.

We were relieved down on Kwaj Lodge not many days ago and took a lazy tropical cruise (some of the Navy and Marine passengers were going stateside) back to good old ** where a little pineapple is rubbed on all documents for an added odor. Following the shuffle, I am now sweating out a move back to the forward area which is already overdue. Managed to get in a few games of golf here. Boy, am I lousy!

Your enclosed literature on "Change the Name of Arkansas" is something I've seriously needed for several months. With this I hope to quiet a few of my damn Yankee friends who only have to smell a cork before they begin to question the marvels of that Great State about which, in a small way, I have enlightened them, particularly are they dim-witted concerning the pronunciation.

Thanks very much for "Random Thots" and The Journal. Your interest in our whereabouts and what we are doing does something very good down inside of us.

Sincerely,

Carl C. Hanchey, Maj., M. C.

COMMUNIQUE

To the Editor:

May 11, 1945

Have received The Journal and "Random Thots" with regularity ever since we arrived here last April, although I neglected to notify of change of APO. Have appreciated this connection with home. Last year saw Major Jabez N. Jackson for a few minutes and Hathcock (Fayetteville) is at nearby 34th General Hospital. We have two Arkansas nurses with us— Lt. York, Little Rock, and Lt. Buzan, Hot Springs. The 158th General Hospital took over from the 5th General Hospital last May and we have operated at emergency capacity most of the time since. Have one of the best plants in the United Kingdom. Am inclosing air photo. Located just outside Salisbury. Expect to show up in Camp Chaffee before many months.

Regards,

W. D. Easterling

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

MANY reports, often contradictory, have appeared concerning the effect of the war on the tuberculosis death rate. News from some of our crowded centers of war production has been discouraging. The press has featured alarming dispatches about appalling conditions in war-torn areas abroad. A few domestic analyses have sounded unduly optimistic. For these reasons, hard-pressed physicians will welcome a sensible, factual statement of the status of tuberculosis mortality in the United States at the present time.

THE TUBERCULOSIS DEATH RATE IN WARTIME

As the war has progressed, persons interested in the problem of tuberculosis control, and in fact the general public, have evinced considerable concern regarding the trend of the country's death rate from tuberculosis.

Inasmuch as war conditions usually lead to an increase in the incidence of tuberculosis a rise in the death rate was to be expected in 1943, the second full year of American participation in the war. For this reason the decline registered is even more encouraging than those recorded in previous years. In view of the chronic nature of the disease, however, several years may elapse before the impact of war conditions is reflected in a mortality rise. Therefore, we must all realize that the probability of an increase in the incidence of tuberculosis is enhanced each day the war continues.

The decline in tuberculosis mortality has continued steadily each year since 1936 and, with the exception of two minor interruptions, each year since 1918. These sustained decreases must be attributed to quite a number of factors, among which are:

1. Greatly improved and enlarged facilities for the care of the tuberculous, including better managed sanatoria and thousands of additional beds; a higher standard of clinic service and of public health nursing service, as well as a great improvement in health administration generally.

2. Earlier diagnosis and improved methods of diagnosis, including mass X-ray surveys among apparently healthy adults.

3. Recognition on the part of patients and their families of the importance of sanatorium care with the result that a much larger propor-

tion of infectious patients have been segregated, thus minimizing the spread of the disease.

4. Increasing awareness of the tuberculosis problem and acceptance of the greatly amplified program of health education.

5. Decided improvement in the standard of living throughout the country.

6. Intensive efforts directed toward certain groups, such as high school and college students, medical students, nurses, expectant mothers and young women generally. More recently these efforts have been directed toward industrial employees, Negroes and Spanish-speaking people, and men and women who are being examined for service in the armed forces.

The most interesting trend noted in 1943 is the fact that so many of these increased death rates are concentrated in the industrial states of the northeastern and north central sections of the country, while, on the other hand, even more pronounced declines are noted in the states of the south and west.

According to one theory, these increased rates in our industrial states may indicate rising mortality from tuberculosis in the country as a whole. Others are of the opinion that the stupendous migration of the past few years may have resulted in a realignment of the American people—to some extent, at least, on health grounds. Only time can determine which of these two hypotheses is correct.

The abnormal conditions incident to the war have affected the population distribution in the states more than is usually realized. Internal migration, both civilian and military, has resulted in decreased population in the northeastern and

north central states, while in the south and west the population has increased materially since the date of the last decennial census in 1940.

The assignment of millions of the country's healthiest young men and young women outside continental United States and the elimination of their number from population estimates upon which death rates are based, have had the effect of raising tuberculosis mortality slightly in the country as a whole. Many more millions of our healthiest young citizens have likewise been assigned to training camps which are largely concentrated in the states of the south and far west, where climatic conditions facilitate military training throughout all months of the year.

Since all (or approximately all) of these young people had been recently X-rayed it is highly probable that the deaths from tuberculosis among their number would have been negligible in 1943; yet 2,500,000 of them were eliminated from the population base on which the death rate is computed.

Simultaneously other millions of all ages whose state of health is unknown have migrated to and fro without pattern in search of industrial employment. It is quite possible that this population upheaval, which has no parallel in American history, will affect the trend of tuberculosis mortality in the states for years to come.

The difficulties of computing sound death rates in these days of major population shifts cannot be appreciated until one makes an effort to obtain population estimates for a given date, to evaluate the extent of the changes in a given community, and to analyze the effect of the population changes on the death rates.

Changes in the size of a state's population are allowed for when death rates are computed on the basis of the best available population estimates. But changes in the age, sex and color composition of the population cannot be taken into consideration until a new population census has been taken. Obviously, no population census will prove to be worth while until the people of the country have had a few years to settle down after the war.

What Is Happening to the Tuberculosis Death Rate?
Mary Dempsey, American Review of Tuberculosis, December, 1944.

COMMUNIQUE

To the Editor: April 13, 1945

A very busy man takes off a little time from extensive surgery to pen a line or two. And

when I say "extensive," I mean extensive. Between GI's and the little brown brothers (both guerrillas and civilians), I have had as much surgery as I can do and still keep up with the army paper work.

Some time ago (can't say when) I treated * * * 's nephew, fractured skull, slight laceration of right hand with a dilly of a temporary increased intracranial pressure problem. He had three beauties of convulsions, now has gone from the hospital back to duty, swell and comparatively happy. For a couple of days I despaired of saving him, but the repeated LP's seemed to do the trick. Thought you might like to tell * * that he is now OK. He, the patient, and I have many friends in common, not to mention a liking for beer.

Not much other news, except that which you know. About all I have time to do is operate, write reams of paper-work, catch a little rest and food.

Best regards.

As ever,

John J. Monfort, Captain, M. C.

FIRST PUBLIC HEALTH TELEVISION PRESENTATION INAUGURATES SEVENTH NATIONAL POSTURE WEEK

New York: Television's first public health educational presentation inaugurated Seventh Annual National Posture Week over the facilities of the National Broadcasting Company early in May. Dr. Armitage Whitman, associate professor of clinical orthopedic surgery at Columbia University, keynoted the program. The United States Army cooperated by assigning WAC personnel.

Coast to coast observance of the event, pivot of the year-round activities of The Samuel Higby Camp Institute for Better Posture, took place May 7 to 12, with physicians, surgeons, community health officers, educators, nurses organizations and other professional and lay groups cooperating in planned programs and exhibits in schools, colleges, "Y's," churches and industrial plants. Posters were displayed in thousands of institutions ranging from the giant War Department's Pentagon Building in Washington, D. C., to little red schoolhouses. Ethical literature emphasizing medical counsel, nutrition, relaxation and sensible exercise crossed the 3,000,000 mark this year.



C. A. ARCHER, M. D.
De Queen

President, Arkansas Medical Society
1945—1946

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EDITORIAL

OUR PRESIDENT

Charles Andrew Archer, DeQueen, installed as President of the Arkansas Medical Society April 22nd, was born near Princeton, Dallas County, August 20, 1876. Moving to Malvern in 1884, he attended the public schools there and then enrolled at the University of Arkansas. His medical education was obtained at the University of Illinois where he graduated in 1904. His first location was at Spadra, Johnson County. In 1907 he established an office at DeQueen where he continues in active practice.

A member of the Arkansas Medical Society since 1905, he has attended every annual session of the Society with the exception of one in this period of active membership. He has served in the various offices of the Sevier County Medical Society, and served eight years on the Council and two terms on the State Medical Board of the Arkansas Medical Society.

With an experience from active participation in the affairs of the Society for these years, with an enthusiasm for the interests of organized medicine which is not equaled, and with a zeal for greater attainments by organized medicine,

the Society confidently looks forward to the coming year as one of distinct progress under his leadership.

EDITORIAL COMMENT

The Division of Maternal and Child Health of the Arkansas State Board of Health is happy to announce that it will again have available a limited number of scholarships for this post-graduate summer course in methods of diagnosis, prevention and treatment of diseases of children. Railroad fare, Pullman, meals while traveling, registration fee (there is no tuition) and room and board while attending the course if kept to a reasonable figure will be paid by the State Board of Health.

Applicants should be willing to serve in some phase of the Maternal and Child Health program.

For further information or to submit application, write to: Frances C. Rothert, M. D., Acting Director, Maternal and Child Health Division, State Board of Health, Little Rock, Arkansas.

ANNUAL SESSION, 1945

The Annual Session of the Society having been cancelled at the request of the Office of Defense Transportation, the Council met as the Executive Committee of the Society in Little Rock April 22nd for the transaction of the necessary business of the Society. Committee reports were heard and appear in this issue of The Journal. The following officers were elected: President, C. A. Archer, DeQueen; President-Elect, H. King Wade, Hot Springs National Park; First Vice-President, R. C. Dickinson, Horatio; Second Vice-President, D. L. Owens, Harrison; Third Vice-President, Fred Hames, Pine Bluff; Councilor, First District, P. W. Lutterloh, Jonesboro; Councilor, Third District, J. O. Rush, Forrest City; Councilor, Fifth District, S. A. Thompson, Camden; Councilor, Seventh District, L. G. Martin, Hot Springs National Park; Councilor, Ninth District, J. G. Gladden; Secretary, W. R. Brooksher, Fort Smith; Treasurer, Paul L. Mahoney, Little Rock; Delegate to the American Medical Association, W. R. Brooksher; Alternate to the American Medical Association, Jos. F. Shuffield, Little Rock, and Delegate to the American Medical Association (unexpired term of S. J. Wolferman), E. E. Barlow, Dermott. S. A. Thompson was elected Chairman of the Council.

RANDOM THOUGHTS OF THE SECRETARY

April 14th. Viewing the cyclone area over in Oklahoma where there is just a bit more mess than the youngster is 'wont to leave in the bathroom.

April 15th. Flying across Blytheville and adjacent territory this afternoon where good Mississippi County earth is just so much mud these days.

April 16th. On the campus of the University of Michigan as a student finding that the state legislature decided that Michigan should have pre-war time and, as is often the case, legislative action is followed by much confusion.

April 17th. Taking the evening off for a short visit to Windsor, Ontario, where there are no red points or shoe coupons and where many cigarettes (Canadian) are displayed in the cases. Dining in the swank Prince Edward hotel, our lapse into luxury startled by the waitress' query: "You didn't want no cream, did you?"

April 18th. Busy with the effort to learn many things from a capable faculty but surprised when there is snow in the afternoon.

April 19th. A good little guy has gone to join a lot of good GI's.

April 20th. Lunching with Robert Clarke, the neuro-psychiatrist, bringing greetings from brother Albert, but less talkative in the presence of one who detects mental aberrations. Homeward bound tonight, reading Halsey's ideas on the treatment of the Japs—and he's our man for the job.

April 21st. Arriving Little Rock quite early by air and visiting about in our day of rest. Tonight Carl Bailey demonstrates mastery of new speech techniques and an amazing familiarity with tilling the soil, carrying the discussion on in more detailed fashion after the President's dinner with the able help of agricultural experts—Earle Hunt, Fred Hames and Bob Robins.

April 22nd. In long but snappy session, the Council functions as the Society this year, but not without regret to all present for the absent fellowship and pleasures of state meeting.

April 27th. In Mena today where interest in cancer has grown and many a person appears at the diagnostic clinic. After long hours we drop Goldstein at Waldron where he pursues his avocation further by discussing venereal disease control and we still marvel at the enthusiasm of this physician.

May 8th. With thankfulness that lives are to be spared in the European conflict we now hope for a miracle to bring an end to the war with the Japanese.

May 15th. With the Jonesboro cancer clinic this afternoon and tonight meeting with the First Councilor District with Kolb and Watson in good form presenting worthy discussions while the college professor sentimentally relives the "good old days" as who does not. With Willett at the wheel we arrive in Hoxie just a trifle late for the Sunshine but can be thankful that heavy travel causes it to run in sections so we are away, more crowded than at any time before, twenty minutes later and on into Little Rock where the hotel has not honored our reservation leaving us to get along as best we can which, in this instance, is to bed at Russellville at 4:30 a. m.

May 20th. On this day we pilot an airplane all alone from Fort Smith to Muskogee, Oklahoma, never off course more than five miles but increasing air turbulence along the airway makes for our continued activity in keeping straight and level flight and, to keep up the heckling which accompanies our every endeavor, an army pilot cracks up on the home air strip just in advance of our landing.

PROCEEDINGS OF SOCIETIES

The Pulaski County Medical Society honored Jos. F. Shuffield at "President's Night" April 22nd with Hon. Carl Bailey speaking on "Agricultural Economy in Arkansas."

The Craighead County Medical Society met in dinner session at Jonesboro May 3rd for a discussion of routine business matters.

J. H. McCurry, Secretary.

The Sebastian County Medical Society met May 8th for a program on "Garbage Disposal as Related to Rat and Fly Control" with motion pictures on the subject.

D. W. Goldstein, Secretary.

Monroe County Medical Society has elected the following officers: President, M. L. Dalton, Brinkley; vice-president, W. H. Martin, Holly Grove, and secretary-treasurer, W. L. Boswell, Clarendon.

The Miller-Bowie Counties Medical Society met April 20th for the following program: "Diagnosis and Treatment of Placenta Praevia," C. A. Smith, and "Ano-Rectal Surgery," H. E. Murry. Geo. W. Parson, Secretary.

The Pulaski County Medical Society was addressed May 7th by M. J. Kilbury, "Diseases of the Liver." L. L. Fatherree, Secretary.

The Benton County Medical Society met at Pea Ridge May 10th for an old-fashioned chicken supper with the ladies as guests.

Geo. M. Love, Secretary.

The Miller-Bowie Counties Medical Society met in dinner session May 18th for the following program: "Silicosis," R. F. Baskett, and "The Management of Ureteral Stones," R. W. Pickett. Geo. W. Parsons, Secretary.

The First Councilor District Medical Society met in dinner session at Jonesboro May 15th for the following program: "War Neuroses Among Returned Servicemen," A. C. Kolb, Little Rock; "The Surgical Management of Compound Depressed Fractures of the Skull," Robert Watson, Little Rock, and "A Layman Looks at the Doc-

tor," Prof. J. P. Womack, Jonesboro. J. H. McCurry, Cash, was elected Secretary for life.

The Hot Spring County Medical Society was addressed April 24th by Maj. J. W. Bowers and Maj. B. A. Bennett, Army and Navy General Hospital, on "Present and Future of Penicillin as a Therapeutic Agent."

C. S. Pool, Secretary.

COMMUNIQUE

To the Editor:

I have received The Journal and "Random Shots" since being in the Army, i. e., since 1942, but have never taken time to thank you. I've enjoyed hearing from the other society officials, especially Dr. Allbright, who I knew when I was a college classmate of his son.

I have been with the Second Division since being in the Army and am more and more convinced that it is the best in the Army. I served as Battalion Surgeon in the 38th Infantry Regiment until December, 1944, and then after a brief period in Division Clearing, with Major Bob Young, have been Regimental Surgeon in the 9th Infantry Regiment, another regiment in the Second Division. We are up where the action takes place and really see plenty. At present I am seeing a lot of Germany, very interesting and at times, exciting.

I have seen this European invasion since its beginning and trust I shall see it to the end. However, I shall be most happy to be home in El Dorado again.

I see Tommy Foltz and Joe B. Wharton are getting around a great deal.

Give everyone my regards.

Thanks for everything.

Yours sincerely,

Hugh J. Mayfield, Major, M. C.



PERSONALS AND NEWS ITEMS

Maj. James M. Kolb, Clarksville, is now stationed at Laughlin Field, Del Rio, Texas.

Capt. R. F. Hyatt, Little Rock, is now stationed with the 536 Medical Clearance Company, Camp Chaffee, Arkansas.

Alfred DeGroat, Little Rock, now stationed overseas, has been promoted to lieutenant colonel.

Maj. Ellery C. Gay, Little Rock, addressed the first conference of army dental officers to be held in the European theater recently on "Injuries Involving the Accessory Nasal Sinuses." Major Gay was the only medical officer on the program, the others being dentists.

Maj. J. K. Donaldson, Little Rock, is now stationed overseas with an evacuation hospital.

Capt. R. E. Schirmer, Fort Smith, is now stationed at Wm. Beaumont General Hospital, El Paso, Texas.

L. D. Massey has been discharged from service as major, medical corps, and has returned to practice at Osceola.

Maj. B. A. Bennett, Little Rock, has been assigned to active duty at Army and Navy General Hospital, Hot Springs National Park.

"Spa Therapy of Arthritis and Rheumatic Disorders" by F. J. Scully, Hot Springs National Park, appeared in Archives of Physical Medicine for April.

Dr. and Mrs. Chas. T. Chamberlain, Fort Smith, spent a recent vacation in Mississippi.

I. F. Jones, Fort Smith, visited New York during April.

O. C. Melson, Little Rock, recently visited the Mayo Clinic.

Capt. C. M. Wassell, Little Rock, visited war plants and government installations in the state during May.

Maj. H. T. Capel, Pine Bluff, is now stationed with an evacuation hospital in the European theater.

R. B. Robins has been elected alderman at Camden.

Lloyd F. Ritchey, Camden, now in service overseas, has been promoted to captain.

Capt. E. P. McGehee, Jr., recently liberated from a German prison camp, has returned to the United States.

Maj. Vann C. Binns, Pine Bluff, has returned after thirty-six months in the African and Italian theaters.

W. G. Hodges, Malvern, has been reappointed city health officer.

Col. Howell Brewer, Hot Springs National Park, is now stationed with School Personnel Services, Lexington, Virginia.

Capt. Huie H. Smith, Little Rock, is now stationed at the Convalescent Hospital, Camp Davis, North Carolina.

Capt. John Stathakis is now stationed at the Veterans Administration Facility, North Little Rock.

S. R. Crawford has moved to Crossett.

Ben D. Means, Little Rock, has been called to active duty as Lieutenant, Medical Corps, Army of the United States, and assigned to Wakeman General Hospital, Camp Atterbury, Indiana.

The Arkansas Tuberculosis Association elected the following officers May 14th: President, J. D. Riley, State Sanatorium; Second Vice-President, B. E. Barlow, Dermott; Secretary, J. S. Levy, Little Rock; Executive Committeeman, A. C. Shipp, Little Rock; Directors, N. T. Hollis, Little Rock; W. R. Brooksher, Fort Smith, and Benton County Representative Director, Geo. M. Love, Rogers.

Capt. Ross E. Maynard, Pine Bluff, is now assigned to Station Hospital, Camp Fannin, Texas, after duty in India.

The Arkansas State Cancer Commission, with appointments by the Governor, consists of Governor Ben Laney; Fred Hames, Pine Bluff; C. A. Rosenbaum, Little Rock; W. R. Brooksher, Fort Smith, and Mrs. R. C. Dickinson, Horatio.

H. K. Wright, who has been taking postgradu-

ate work since discharge from military service, has resumed practice at Hot Springs National Park.

W. G. Hodges has been reappointed city health officer at Malvern.

The following have been appointed to The State Medical Board of the Arkansas Medical Society: J. T. Matthews, Heber Springs; W. H. Poynor, Harrison; J. M. Proctor, Hot Springs National Park, and J. B. Jameson, Camden.

Lt. Paul W. Hoover, Little Rock, is now on duty with the 318th Field Hospital, Fort Lewis, Washington.

Paul S. Lanier, Hot Springs National Park, has moved to Greenville, Mississippi.

Maj. Warren S. Riley, El Dorado, is now stationed at Camp Bowie, Texas.

Capt. John B. Elders, Walnut Ridge, is now stationed with the 426th Armored FA Battalion at Camp Bowie.

D. A. Rhinehart, Little Rock, has been elected vice-president of the American Registry of X-ray Technicians.

Capt. Wm. B. Connolly, Helena, is now stationed overseas.

Lt. Col. James W. Branch, Division Surgeon, 6th Armored Division, now stationed in Germany, has received the Oak Leaf Cluster to the Bronze Star.

COMMUNIQUE

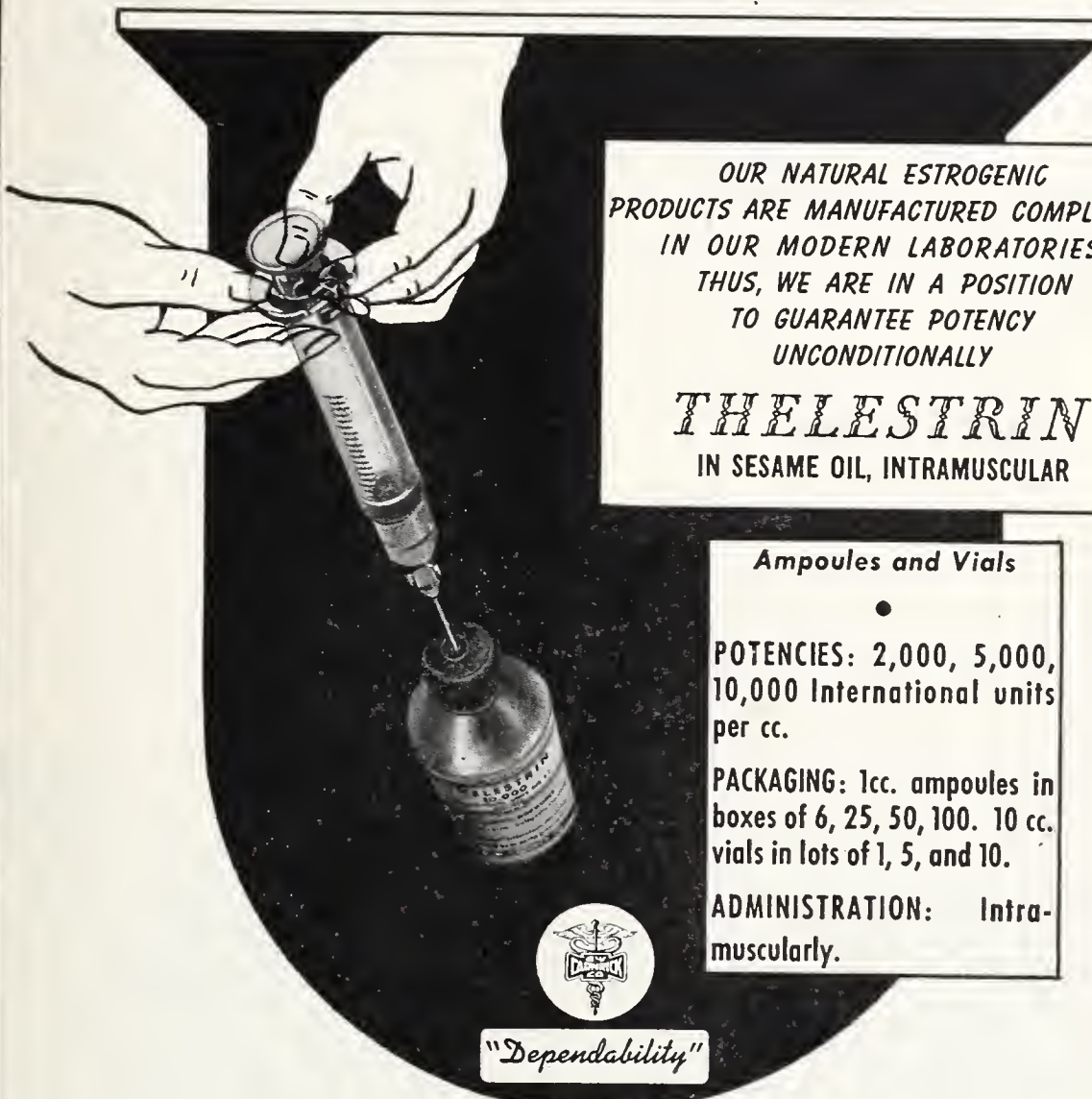
May 9, 1945

To the Editor:

Here is a short note from one of your long-lost members. First of all, may I express my appreciation for your monthly report and words of cheer that you have sent us. I suppose a brief synopsis of my army career might be in order. After serving one year at the Induction Station in Omaha, Nebraska, I was assigned to the 99th Station Hospital as Chief of Surgical Service, in which position I served 27 months. We organized at Fort Bliss, Texas, in April 1942, and left for India on May 18th. After 58 days aboard ship we disembarked at Karachi, India. I was stationed at APO 690 until July, 1944. After this, I served for three months as General Sur-

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geon at the 30th Station Hospital, APO 690.

My trip back home was by air, landing in Washington, D. C., 9 days after leaving my post in India, exactly 30 months to the day after leaving the USA. After processing at Hot Springs, Arkansas, I was assigned to the Surgical Staff at Camp Fannin, Texas, at which post I have been assigned since January 8th of this year and am still at the job.

My hopes, as all of ours, are for this to soon be over and to get back to my home town of Pine Bluff, where I expect to get back into the pleasures of civilian practice.

Trusting I may continue to receive your monthly contact epistle.

Ross E. Maynard, Captain, M. C.,
Station Hosp., Camp Fannin, Tex.

COMMUNIQUE

May 12, 1945

To the Editor:

I have been receiving The Journal and Random Thots fairly regularly and certainly appreciate them. We have moved three times to various air fields on this island but are now in what seems to be a fairly permanent place (for at least three or four months).

We have a 50-bed portable surgical hospital which we move with us by air and get to do quite a lot of work. I am the Group Flight Surgeon of this outfit and have never seen so much paper work since I have been in the army, really there is twice as much to do over in this theater than there was back in the States.

Thanks for sending Karlton Kemp my address, I had a letter from him a couple of weeks ago. Haven't met any Arkansas men since I have been over here but there must be some of them on this island somewhere, so I will keep looking.

The general impression among the higher-ups in the air corps in this theater seems to be that the Japs will fold by Christmas of this year, I hope they are right but am a little dubious.

Have changed APO numbers several times since I last wrote to you but my latest is * *. Thanks again for The Journal and the letters.

Fraternally yours,
Elmer J. Ritchie, Major, M. C.

COMMUNIQUE

May 1, 1945

To the Editor:

I just received your "Random Thots" which

was accompanied by the classic enclosure of Hiram Johnson's reasons for not changing the name of Arkansas. I have often wished that I had this speech to use as reference in some of the arguments that constantly arise on the true merits of our lovely state. Being the only medical officer from Arkansas in my unit, I have often had to resort to personal ingenuity in order to keep my head above the voices of the other thirty-eight officers.

Have been in the * * * since S-Day visiting various towns on the route to * * *. In fact, my trip to * * * was rather adventurous. We were set and ready for business when the division marched in.

Have seen only one medic from Arkansas, Earl Lusk. I understand Elmer Ritchie, Stoker and Monfort are around but haven't seen them. Ritchie started in but after getting mixed-up in some Jap artillery about six blocks away from the hospital, decided he would see me back in the States.

At the present our unit is in the mountains "mopping up" but seems to me there is still a hell of a lot of fighting going on.

Please note my APO which changes with each beachhead.

Friedman Sisco, Major, M. C.

WOMAN'S AUXILIARY PAGE

Woman's Auxiliary to the Bowie-Miller Medical Society was entertained in its regular meeting April 27th at the home of Mrs. J. T. Robison with Mrs. C. A. Smith and Mrs. Ralph Cross as co-hostesses.

A variety of spring flowers was used in the rooms. Mrs. J. T. Robison, president, directed a business session. Mrs. Harry Murray, secretary, gave her report, followed by the reports of other officers and chairmen of various activities.

Mrs. C. H. Frank reported medical current events, laying particular stress on work in malaria control.

Mrs. Hayes McClerkin gave a very interesting and comprehensive talk on antique glass, telling the romance of old medicine vials used for "bit-ters" and perfumes. She also gave a display of attractive bottles and other glassware.

Mrs. J. W. Deaton was welcomed as a visitor.

Following the program, the hostesses served a pretty ice course. The home was decorated throughout with a profusion of lovely flowers.

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No. 2

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A FEW THINGS I HAVE SEEN AND LEARNED IN FIFTY YEARS OF MEDICINE*

J. H. McCURRY, M. D.
Cash

A noted and well-informed professor of the English language said: "It is all right for a person to say I see if they have actually seen or seen something."

Most any doctor who has been in the study and practice of medicine for a half century has had occasion to see and learn a great many changes and improvements. If he has any horse-sense, he has at least learned to keep quiet where angels fear to tread and to blow his own trumpet only when and where it will do the most good. I have known occasions where it would have been good policy to have steered clear and silence would have been golden.

In the dark ages there was an ogre or an imaginary man-eating monster on the other side of every hill and sick people attributed their illness caused by the displeasure of the gods, and, according to that view of their pathology, they could be cured in no other way than by appeasing this displeasure of the deities. We have now learned to not mix foolish absurdities with rational procedures.

When we begin the study of medicine, and especially the practice, all kinds of diseases danced around us in troops and very much resembled each other. When one first goes to China they say, "All Chinese look alike to him, but after he has been there awhile he will at least get to know the men from the women." In the same way one gets to classify diseases.

When I began the study of medicine most of the important books were bound in sheepskin with the tale on the inside, some of them a very long, hard and crooked tale without an end. Especially was this so with Mr. Gray's Anatomy. Anatomy describes the makeup of the human

body, and a knowledge of this is most essential to the student and practitioner of medicine, and like the circle, it has no end.

Osteology is our first lesson, starting with the spinal column, which has two ends. This is a string of bones running up our back with our heads setting one end and us setting on the other. Inside the head we find the sphenoid bone, the bugbear to the medical student. Inside the sella-turcica we find the pituitary body riding this Turkish saddle. This little gland is no larger than a small pea, where an abnormal production of its secretion gives us giants and pigmies with large feet and hands. This gland exercises control over another gland that rides the elevator of our Adam's apple up and down every time we swallow. When this thyroid gland goes on strike in infancy cretinism results which fifty years ago led to hopeless idocy. Today the thyroid treatment, if instituted early, works miracles of modern science without which we would have the thick tongue and lips, putty-faced, pompous abdomen and half-witted or demented child or the expressionless face, slow speech of the adults and the fat woman in the side show.

With the advent and light of endocrinology, materia-medica, as it was then written, had to take a back seat, lick its wounds and recuperate. I remember hearing my professor of materia-medica make sport of Brown Sequard's claims of testicular secretions, and called them "Sequard's rambolick soup." At that time very little was known and less use made of endocrinology. Sajous said: "The use of the knowledge gained in the functions of the internal secretions and their influence in practice, in so far as pathogenesis, diagnosis and therapeutics are concerned, may be regarded as the most constructive asset ever bestowed upon internal medicine by the thousands of clinicians and investigators who have given it the benefit of their endeavors. Endocrinology sacrifices nothing of what we know; it adds to and elucidates all we know, and on the whole it appeals to our highest aims, the relief of suffering humanity." We are all aware of the beneficial effects of the estrogenic hormone, adrenalin and the host of other internal secre-

Read before the Craighead-Poinsett County Medical Society, January 4, 1945.

tions that produce brilliant results in replacing the deficiencies of the ductless glands.

A very short time before I began the study of medicine, Lord Joe Lister had taught Theodore Billroth, Nicholas Senn and other noted surgeons of the 70's, 80's and 90's, Joseph O'Dwyer, Lawson Tate, Thomas Addis Emmett, Howard A. Kelly, Silas Weir Mitchell and other great and well-known gynecologists and what have you to wash their hands before, instead of after, operations. At that time antiseptics and asepsis were not really in their infancy but rather in the embryonic stage. It has been said that "There are only two periods in the history of surgery—before Lister and after Lister." Antiseptics and anesthesia did wonders for surgery.

"Lord give us this day our daily bread and protect us from diphtheria" was heard throughout the Christian world before the days of antitoxin.

The first textbook on practice I owned was Strumpell's second American edition and the German sixth, published late in 1892, does not mention antitoxin, neither does Bartholow's *materia-medica* published in 1894. But both give a long list of remedies that the average doctor does not use today in this erstwhile scourge of small children. Diphtheria antitoxin was placed in the hands of the medical profession in 1895, and in its dying years the nineteenth century bequeathed to the twentieth three important discoveries: the X-ray by Wilhelm Konrad Roentgen, the Finsen lamp by Neils Finsen, which gave us photography, and radium by Pierre and Marie Curie.

Weichselbaum discovered the exciting cause of epidemic cerebrospinal meningitis in 1894, Kitasto and Yersin discovered the bacillus of bubonic plague, and in 1897 Kruse and Shiga discovered the exciting cause of dysentery. In 1901 came the discovery by Forde, Dutton and Bruce of the exciting cause of sleeping sickness, and 1905 was marked by Schaudinn's discovery of the *spirochaeta pallida*, the exciting cause of syphilis. This gave Paul Ehrlich the clue to the discovery of his magic bullet. In 1910 Paul Ehrlich addressed a great gathering of scientists and said: "Gentlemen, I have a drug that will cure a mouse of syphilis and I shall make another to cure a million men." A decade passed. Ehrlich and his collaborators prepared 604, 605 and 606. The last named, 606, or arsenamine, sounded the death knell of the treponema. Paul Ehrlich said to one of his colleagues: "For seven years of misfortune I had one moment of good luck."

The following are some of the outstanding dis-

coveries of recent years:

The knowledge gained of anaphylaxis, the use of preventive medicine and the reduction of mortality as a result of the growing control of the infectious diseases and the contagious maladies, the development of hygiene and sanitation, the use of liver extract in the treatment of pernicious anemia, the discovery of insulin, the anti-diabetic hormone, the advance in parenteral therapy, especially the use of arsenical preparations for the treatment of syphilis, and the application of electricity to diagnosis and new techniques in surgery. Riva Rocci gave us the blood pressure instrument in 1896. The development of the glandular products that have become popular and beneficial in the treatment of diseases is another important discovery.

The most important discoveries of the twentieth century are vitamins, sulfa drugs and penicillin. Modern science has found that we can starve in the midst of plenty. Vitamins in the proper proportion and well-balanced hormones make life more harmonious. Several chronic diseases are the result of food deficiencies. I heard Goldberger deliver some of his first addresses on the deficient diet as the cause of pellagra. He was ridiculed and criticised by the whole membership of the old Tri-State Medical Association. Today it would be difficult to find a disputant against his claims.

Scientists and inventors of something worth while have many difficulties and prejudice to overcome. They usually have one more river to cross and one more hill to climb because there are a lot of things about onions that some people don't know. Thus we turn back the pages of history on the discovery of the X-ray. Mortality brigades were formed over night to resist to the death the destruction of all decency. A London firm rose to the occasion and made a small fortune from the sale of X-ray proof underwear. New York was also in the van with a determined attempt to obtain legislation against the use of opera glasses in theaters. They wanted to keep the morals of humanity up above the hop toads. After the modes, uses and clear understanding of such achievements are cleared up, the inventor does not have to go under cover, change his name, or work at odd jobs in the dark of the moon to gain recognition.

In my limited studies and observations in the past fifty years I have witnessed some very notable discoveries. I was born in 1874. I began the study of medicine in 1894. I have lived in the hot-bed of malaria all my life and have chilled without relief for a whole year, and have had the black water fever. So you see I should

have been very much interested in this affection after I began the study of medicine.

In 1880, Laveran, a native of Paris, France, announced the discovery of a parasite of malarial fever patients. He said: "I found in the blood leucocytes charged with pigment, already seen by other observers, but besides melaniferous leucocytes, spherical bodies, varying in size, pigmented, endowed with ameboid motion, and pigmented crescentic bodies attracted my attention. I supposed at that time that these were parasites. I discovered, besides the spherical pigmented bodies in the blood of a malarial patient, filiform elements resembling flagella which writhed with great vivacity and displaced the neighboring corpuscles. From then I had no further doubt as to the parasitic nature of these elements which I had found in the blood."

Ronald Ross said: "In 1897 I went to an intensely malarious spot in the Nilgiri mountains. There for the first time I saw the anopheline—the really culpable kind. A few months later I was rewarded with success. I found the zygotes of the parasites in two large dappled-winged mosquitoes which had been bred from the larva and fed on a case containing cresents. This fortunate observation gave the clue to all that followed."

Prior to 1900 yellow fever had been the greatest scourge of tropical America. Typhoid and smallpox were easily controlled because the means of preventing them were known, but yellow fever was still a mystery. In 1900 a special commission of army doctors was sent to Havana to study the problem. Its chairman was Dr. Walter Reed. The commission decided that a solution of the yellow fever mystery and all that this would mean in the saving of life would justify experimenting on human beings. The members of the commission agreed that it was their duty to be the first ones to run the risk. Dr. James Carroll, who allowed himself to be bitten by a mosquito which had previously bitten four yellow fever patients, promptly contracted the malady and was dangerously ill for three days but finally recovered. But Jesse W. Lazear, the second man to be bitten, died.

An experiment station called "Camp Lazear," in honor of the first martyred member of the party, was established in the open country near Havana. Volunteers were called for, and in spite of the danger there were always men ready and willing to serve in this cause. The first two volunteers after Lazear's death were a private, John R. Kissinger, and a civilian government clerk, John J. Moran. Reed explained to them fully the danger and suffering involved. Then seeing

they were determined, he stated that a definite money compensation would be made them. Both young men declined to accept it, making it indeed their sole stipulation that they should receive no pecuniary reward, whereupon Major Reed touched his cap respectfully, "Gentlemen, I salute you." Reed's own words, in his published account of the experiment on Kissinger and Moran are: "In my opinion this exhibition of moral courage has never been surpassed in the annals of the army of the United States." Both Kissinger and Moran had severe attacks of yellow fever after submitting to the bites of infected mosquitoes. Fortunately they recovered, as did all the men who developed yellow fever later as a result of the experiment at Camp Lazear. Ten minutes before the close of the year in which this discovery was made, he said: "I thank God that this has been accomplished during the latter days of the old century. May its cure be wrought out in the early days of the new."

Holmes said: "Medicine appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way or is likely to be ailing from any cause. It learned from a monk how to use antimony, from a Jesuit how to cure ague, from a friar how to cut for a stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairy maid how to prevent smallpox, and from an old market woman how to catch the itch insect. It borrowed acupuncture and the moxa from the Japanese heathen, and was taught the use of lobelia by the American savage."

In addition to the above by Holmes, vipers gave hypodermics long before man discovered that means of medication. Children playing that gave Laennec the idea for the stethoscope. Manuel Garcia, a singing teacher, gave us the laryngoscope. Christopher Wren, the architect, gave us the hollow hypodermic needle in 1852 after Pravaz had invented the hypodermic syringe in 1851. Helmholtz gave us the ophthalmoscope in 1850 and Max Nitz gave the profession the cystoscope, urethroscope and rectoscope.

In the first half of the nineteenth century English physicians gave their names to various diseases—Bell's, Bright's, Hodgson's. Many surgical operations were first performed in the nineteenth century. Many instruments that were invaluable in the practice of medicine and surgery were also invented. Long, anesthesia; McDowell, father of ovariectomy; Edward Jenner, Ehrlich, Koch, Bering, Laennec, Pasteur, Virchow, Austin Flint, J. Marion Sims, and a host of others who have helped to more or less scotch the former

dangers and whose wonderful, helpful achievements have echoed and re-echoed around the world. Peace be to their ashes.

Physical perfection is a great asset in any walk of life, but if you have the idea that physical defects sounds your downfall, take a look at this array of famous men and the handicaps that failed to slow them down. Lord Byron had a club-foot; Robert Louis Stevenson and John Keats had tuberculosis; Charles Steinmetz and Alexander Pope were hunchbacks; Admiral Nelson had only one eye, and Edgar Allen Poe was a psycho-neurotic. Charles Darwin was an invalid; Julius Ceasar was an epileptic; Thomas A. Edison and Ludwig Beethoven were deaf, and Peter Stuyvesant had a wooden leg.

Speaking of handicaps, I believe every doctor who has had to deal with fractures dreads the ordeal on account of the outcome, not so much on account of a probable malpractice suit as the ordeal of a defective outcome for the patient. I have often thought that if a doctor ever has a nightmare it will consist of several of his influential former fracture patients with crooked and distorted limbs dancing around him on crutches.

We should use diplomacy with most of our patients and with people we have to deal with. Almost every one wants you to agree with them, and if you don't they get mad. And some will get mad if you do agree with them.

I was called to see an "Old Rounder" who had a bilateral epididymitis with one testicle swelled to about the size of a croquet ball and the other a great big one. He persisted in declaring that "he was bound to die." I told him that "he was not very sick and that he would soon be well." He got raving mad and said: "No one never was in that shape and got well." But after I had hot epsom fomentations applied and gave him a few shots of intravenous calcium gluconate, he limbered up, came ashore and was back in circulation pronto. But at a prayer meeting one night an old brother was called on to pray, and among other things he said: "Lord, Thou knowest if I had got my just dues I would have been in hell long ago." And when someone said, "Amen, so be it," there came very near being a fight.

We should be glad to be good politicians, not so much for pecuniary gains as to count our blessings. We should at least be attentive and considerate with children. A little girl won Calvin Coolidge his first nomination for President. When he was up for nomination he had a lot of opposition and competition. One big-wig said he had real presidential possibilities. Several others unanimously disagreed and said he was too quiet, lacked color and political personality; no one

would like him. "I like Mr. Coolidge," said a six-year-old girl as she displayed a finger with a bit of gauze around it, "he was the only one here who asked me about my sore finger." "There is your answer," said the first sage. You know what followed.

It is said that a boy gets his politics from his daddy and his religion from his mother, for generally the old man does not have enough religion to divide and have any left. As stated above, we should be politically-minded. A doctor was called in to see an old lady of a family, the pay-you-the-next-week kind. This mother was very delirious and talking incoherently. None of the family could understand her. They asked the doctor if he could understand her. The doctor leaned over and listened quite attentively for quite awhile then informed the family that she said, "Be sure to pay the doctor first."

The scientist is in ecstasy to describe the latest discoveries and improvements. The theologian delights to dwell on the consoling words of the gospel and to read and re-read the wonderful story of creation in Genesis. At the close of the first day it says: "And the evening and the morning were the first day." Through each succeeding day the evening and the morning made the day, and on the last day it said: "And the evening and the morning were the sixth day." So all through life the evening with its fading beauty, and the morning with its coming light, have made the day with its changing glories. We follow them for a lifetime and no two scenes are the same. The stage setting is a little different, and the colors are placed in new combinations. Then the master shifts the canvas and man's work begins, and we realize that the work of God and man are linked in an inseparable union. God creates and man carries on.

When we accept the responsibilities that come within our scope in the practice of medicine we should find glory enough here for the good we accomplish in our line of work.

Medical life is worth living but the bitter comes with the sweet. Long hours of toil, at the public's beck and call. Day or night—it makes no difference how jaded or tired—there come calls in every doctor's life that just cannot go unanswered. For we are in the boat with Jim Bludso, and, like that faithful hero, we have to hold her nose to the bank until every galoot is ashore.

What a beautiful world to leave, but nature is kindly and gradually wrapping us up for the last long ride; and when it is finished we should be prepared to gladly and proudly say, "Ship Ahoy! Watchman, what of the night?"

THE WAGNER-MURRAY-DINGELL
BILL—S. 1050 OF 1945

An Analysis by the Bureau of Legal Medicine and
Legislation, American Medical Association,
May 26, 1945

In General

The Wagner-Murray-Dingell bill differs in many respects from the previous one, some of which differences will be bold faced or otherwise referred to in this and succeeding analyses. For one thing, it contains ninety-five more pages. Briefly and in broad outline, here is what the bill contains: It adds a new title to the Social Security Act for grants and loans for hospitals and health center construction. This title corresponds closely with the provisions of the Hill-Burton hospital construction bill, with significant exceptions. It provides for grants and services to develop more effective measures for the prevention, treatment and control of venereal diseases and tuberculosis and to extend and improve public health work. It proposes grants to states for maternal and child health services, for services for crippled children and for child welfare services. It would make available grants to states for public assistance to needy individuals, including medical care for such individuals. Section 9 proposes to amend title II of the Social Security Act to provide a national social insurance system. The amended title would provide for (a) prepaid personal health service, (b) a national system of unemployment and temporary disability insurance (including cash benefits for disability from sickness which causes

Division of Contributions

Program	Employer	Employee	Total
1. Retirement, survivors and extended disability insurance..	1.0%	1.0%	2.0%
2. Medical care and hospitalization insurance	1.5%	1.5%	3.0%
3. Unemployment insurance	1.0%	1.0%	2.0%
4. Temporary disability insurance	0.5%	0.5%	1.0%
Total contributions.....	4.0%	4.0%	8.0%

unemployment), (c) retirement, survivor and extended disability benefits, (d) a national social insurance trust fund, (e) credit for military service, (f) extended coverage to include an estimated additional 15,000,000 persons, (g) contributions or taxes by employers, employees and the self-employed and (h) certain general provisions to apply to the operation of the title.

Some of the foregoing parts of the bill will be dealt with in subsequent analyses. The present analysis will be confined to that section of the bill proposing a system of compulsory health

insurance to be "made available to 135,000,000 persons," in the words of Senator Wagner. In passing, it is perhaps significant to note that the term "compulsory" appears in no place in the releases made available by Senator Wagner to explain the contents of his bill and to construe its provisions. Rather the emphasis has been placed in such releases on the contention that the legislation will not interfere with the normal relationship between the patient and his physician and on the point of view that the health insurance provisions will not be mandatory on the medical profession.

The national social insurance system will be financed in general from a trust fund established by a 4 per cent employer and a 4 per cent employee contribution on wages and salaries up to the first \$3,600 a year paid or received after Dec. 31, 1945. The first bill placed the ceiling at \$3,000 a year and the employer-employee contribution at 6 per cent each. The contribution to be made by the self-employed will be 5 per cent of the market value of services subject to the same ceiling limitation. The contribution by states and localities and by their employees will be 2.5 per cent of the first \$3,600. The contributions that employers and employees will make to finance the system will be distributed as shown in the table.

Medical, Hospitalization, Dental, Nursing
And Related Benefits in General

Part A of the amended title II proposes a system of compulsory prepaid personal health service insurance to covered employees and certain specified dependents. As used in this part, the term "personal health service benefits" is defined to include general medical benefits, special medical benefits, general dental benefits, special dental benefits, home nursing benefits, laboratory benefits and hospitalization benefits. There was no provision in the first bill for dental or home nursing benefits. When the term "general medical benefit" is used, it means services furnished by a legally qualified physician or by a group of such physicians, including all necessary services such as can be furnished by a physician engaged in a general or family practice of medicine, at the office, home, hospital or elsewhere, including preventive, diagnostic and therapeutic treatment and care, and periodic examination. The definition in the earlier bill did not refer to services rendered "by a group of such physicians."

The term "special medical benefit" is defined as necessary services requiring special skill or experience, furnished at the office, home, hospital

or elsewhere by a legally qualified physician who is a specialist **or consultant** with respect to the class of service furnished, **or by a group of such physicians, or by a group of physicians including such specialists or consultants.**

The term "general dental benefit" is defined to mean services furnished by a legally qualified dentist or by a group of such dentists, including all necessary dental services such as can be furnished by dentists engaged in the general practice of dentistry, with or without the aid of an assistant or hygienist under his direction, and including preventive, diagnostic and therapeutic treatment, care and advice, and periodic examinations. Similarly, the term "special dental benefit" is defined to mean necessary services requiring special skill or experience, furnished at the office, hospital or elsewhere by legally qualified dentists (with or without the aid of an assistant, hygienist or anesthetist under his direction) who is a specialist or consultant with respect to the class of service "furnished by a group of such dentists, or by a group of dentists, including such specialists or consultants."

"Home nursing benefit" means nursing care of the sick furnished in the home by (1) a registered professional nurse or (2) a practical nurse who is legally qualified by a state or, in the absence of state standards or requirements, who is qualified with respect to standards established by the Surgeon General after consultation with the Advisory Council and with competent professional nursing agencies and who furnishes nursing care under the direction or supervision of the state health agency, the health agency of a political subdivision of a state or an organization supplying and supervising the services of registered professional nurses.

A beneficiary entitled to laboratory benefits will receive such necessary laboratory or related services, supplies or commodities as the Surgeon General may determine, including chemical, bacteriologic, pathologic, diagnostic and therapeutic X-ray and related laboratory services, **refractions and other ophthalmic services furnished by a legally qualified practitioner other than a physician**, physical therapy, special appliances prescribed by a physician, and eyeglasses prescribed by a physician or other legalized practitioner. If any of the services, supplies or commodities covered by this definition are provided a hospitalized patient, or by a physician or dentist incidental to services rendered, payment therefor will be included in payments for hospitalization or for services furnished, respectively.

"Hospital benefit" is defined to mean an amount, as determined by the Surgeon General

after consultation with the Advisory Council created by the bill (S. 1161 required the determination to be made "after approval by Social Security Board"): not less than \$3 and not more than \$7 (\$6 in the first bill) for each day of hospitalization not in excess of thirty days in a period of hospitalization, not less than \$1.50 and not more than \$4.50 (\$4 in the first bill) for each day of hospitalization in excess of thirty in a period of hospitalization, and not less than \$1.50 and not more than \$3.50 (\$3 in the first bill) for each day of care in an institution for the care of the "chronic sick." In lieu of such compensation, the Surgeon General may enter into contracts with participating hospitals for the payment of the reasonable cost of hospital service at rates for each day of hospitalization neither less than the minimum nor more than the maximum applicable rates previously mentioned. In S. 1161 such contracts were conditioned on the approval of the Social Security Board.

A new provision relating to these contracts with participating hospitals provides that payment may be included in a contract for inclusive services of a participating hospital and its staff or attending staff and that such payment will not affect the right of participating hospitals to require payments from patients with respect to the additional cost of more expensive facilities furnished for lack of ward facilities or occupied at the request of the patient, or with respect to services not included within a contract.

A hospital may become a "participating hospital" if it is an institution which provides all necessary and customary hospital services and is found by the Surgeon General to afford professional service, personnel and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institutions. The Surgeon General may accredit a hospital for a limited variety of cases and may accredit an institution for the care of the "chronic sick," taking into account, for the purpose of such limited accrediting, the type and size of the community which the institution serves, the availability of other hospital facilities and such other matters as the Surgeon General may deem relevant.

National Advisory Medical Policy Council

The pending bill contemplates the creation of a National Advisory Medical Policy Council. This Council will consist of the Surgeon General as chairman and sixteen members appointed by him **without regard to the Civil Service laws and subject to the approval of the Federal Security Administrator.** The appointed members will be selected from panels of names submitted by

professional and other agencies and organizations concerned with medical, dental and nursing services and education and with the operation of hospitals **and laboratories** and from among other persons, agencies or organizations informed on the need for or provision of medical, dental, nursing, hospital laboratory or related services and benefits. A new provision in the bill requires the membership of the Advisory Council to include (1) medical and professional representatives and (2) public representatives, in such proportions as are likely to provide fair representation to the principal interested groups, that furnish and receive personal health services, having regard for the functions of the Advisory Council.

Appointed members will hold office for four years, with terms of office staggered, and will receive compensation at the rate of \$25 a day for the time spent on official business with the Council plus actual and necessary traveling expenses. The Council will be required to meet not less frequently than twice a year and whenever at least four of the members request a meeting. The Advisory Council will advise the Surgeon General with reference to **questions of general policy and administration** in carrying out the provisions of this particular section of the bill, including (1) professional standards of quality to apply to personal health service benefits; (2) designation of specialists **and consultants**; (3) methods and arrangements to stimulate and encourage the attainment of high standards through the services of general **or family** practitioners, specialists and consultants, laboratories and other auxiliary services, and through the coordination of the services of physicians **and dentists** with those of educational and research institutions, hospitals and public health centers, and through other means; (4) standards to apply to participating hospitals, to the relations or coordination among hospitals and to the establishment and maintenance of the list of participating hospitals; (5) adequate and suitable methods and arrangements of paying for personal health service benefits; (6) studies and surveys of personal health services and of the quality and adequacy of such services; (7) **policies and procedures for determinations of disability**; and (8) grants-in-aid for professional education and research projects. Under the first bill the Advisory Council was also directed to advise the Surgeon General with respect to the establishment of special advisory, technical, local or regional boards, committees or commissions. Under the pending bill the Advisory Council is authorized to establish such groups, whose membership may include members of the Council or other persons or both, to advise

on general or special questions, professional and technical subjects, questions concerning administration, problems affecting regions or localities, and related matters.

Selection of Physicians; Acceptance of Patients; Panels

The Surgeon General will be required to publish and otherwise make known in each local area to individuals entitled to benefits the names of medical and dental practitioners **and groups of practitioners** who agree to furnish services as benefits and to make such lists of names readily available to individuals entitled to benefits. A new provision in the pending bill provides that such lists must include general or **family** practitioners and qualified specialists and **consultants**. With respect to qualified specialists and consultants the lists must indicate the class or classes of specialist or consultant services for which each has been qualified. Any physician, dentist or nurse legally qualified by a state to furnish any services included as personal health service benefits will be legally qualified to furnish such benefits, including any group of physicians, dentists or nurses or combinations thereof whose members are similarly qualified. A limitation contained in the first bill conditioning the participation by a physician on rules and regulations prescribed by the Surgeon General has been eliminated.

Likewise a beneficiary may select any practitioner appearing on a panel to treat him subject to the consent of the practitioner or the group of practitioners, as the case may be. This freedom of choice of practitioner is conditioned, however, on the right of the Surgeon General to prescribe maximum limits to the number of potential beneficiaries for whom a practitioner or group of practitioners may undertake to furnish services, and such limits may be nationally uniform or may be adapted to take account of "relevant factors." A restriction in the old bill that the freedom of choice of physician must be exercised in accordance with such rules and regulations as the Surgeon General may prescribe has been eliminated. A new provision, however, has been added to the effect that every beneficiary and every group of beneficiaries will be permitted to make selection of a practitioner through a representative of his own choosing.

As in the bill introduced in the Seventy-eighth Congress, the services of specialists, or consultants as added by the pending bill, will ordinarily be available only on the advice of the general practitioner. This is modified in the new bill so that such services may be made available on the advice of a specialist or consultant attending the

individual or "when requested by an individual entitled to specialist and consultant services as benefits and approved by a medical administrative officer appointed by the Surgeon General."

The Surgeon General will designate what shall constitute specialist or consultant services. He will likewise determine who are qualified to render such services, in accordance with general standards prescribed by him after consultation with the Advisory Council. In establishing standards and in designating specialists and consultants, the Surgeon General will be required to "utilize standards and certifications developed by competent professional agencies" and must "take into account the personal resources and needs of regions and local areas."

Payments for the Services of Practitioners

Payments to general medical and family practitioners or to general dental practitioners may be made (1) on the basis of fees for services rendered, according to a fee schedule, (2) on a per capita basis, the amount being according to the number of individuals entitled to benefits who are on the practitioner's list, (3) on a salary basis, full time or part time or (4) on a combination or modification of these bases, as the Surgeon General may approve. The method of payment will apparently be determined in each local area as the majority of the general medical and family practitioners or of the general dental practitioners, respectively, may elect. A new proviso authorizes the Surgeon General to make payments by another method from the one selected in a local area to those general medical and family practitioners or general dental practitioners who do not elect the method designated by the majority. Any of the methods of making payments indicated in the foregoing may be used, as the Surgeon General may approve, in making payment to groups of practitioners that contain designated specialists or consultants as well as general or family practitioners. The Surgeon General may negotiate agreements or co-operative working arrangements to utilize inclusive services of hospitals and their staffs or attending staffs and may enter into contracts for such inclusive services.

Payments to designated specialists and consultants may be made on the basis of salary (whole time or part time), "per session," fee for service, per capita or other basis or combination, as the Surgeon General and the specialists and consultants may agree.

Rates or amounts of payment for particular services or classes of services may be nationally uniform or may be adapted to take account of

relevant regional or local conditions and other factors. The bill contains a new provision that payments shall be adequate, "especially in terms of annual income or its equivalent and by reference to annual income customarily received among physicians, dentists and nurses, having regard for age, specialization and type of community." Payment will be commensurate with skill, experience and responsibility involved in furnishing service. In any local area where payment for services of a general or family practitioner is only on a per capita basis, the Surgeon General, the bill proposes, shall make per capita payments on a pro rata basis among the practitioners and groups of practitioners of the local area on the panel with respect to those individuals who after due notice have failed to select a general or family practitioner or who, having made one or more successive selections, have been refused by the practitioner or practitioners selected.

In each local area the provision of general medical or dental benefits will be a collective responsibility of all qualified general medical or family practitioners or of all qualified general dental practitioners, respectively, in the area who have undertaken to furnish such benefits.

Home Nursing Benefits

The bill provides that home nursing benefits shall ordinarily be available only on advice of a legally qualified attending physician but may be made available also when requested by an individual entitled to the benefits and when approved by a medical officer designated by the Surgeon General. The method to be used in paying for home nursing services is not clear.

List of Participating Hospitals

The Surgeon General is directed to publish a list of institutions which he finds to be participating hospitals in accordance with general standards prescribed by him after consultation with the Advisory Council. Any institution which is not included in the list, or any institution having been removed from the list, may petition the Surgeon General for a hearing. The bill provides that the Surgeon General shall exercise no supervision or control over a participating hospital unless it is owned or leased and operated by the United States. No requirement for participation by a hospital may prescribe its administration, personnel or operation.

Limitations on General Medical, General Dental, Home Nursing and Laboratory Benefits

The Surgeon General, after consultation with

the Advisory Council and subject to the approval of the Administrator of the Federal Security Agency, may determine that every individual entitled to general medical, general dental or home nursing benefits may be required by the physician, dentist or nurse attending him to pay a fee with respect to the first service or with respect to each service in a period of sickness or course of treatment if he believes that such a limitation is necessary and desirable to prevent or reduce abuses of entitlement to the benefits. The maximum amount of such fee may be fixed by the Surgeon General after consultation with the Advisory Council and with the approval of the Administrator of the Federal Security Agency. He may also limit the application of such fees to home calls, to office visits or to both.

A new provision in the bill would authorize the Surgeon General, after consultation with the Advisory Council and with the approval of the Administrator of the Federal Security Agency, to restrict the content of the general dental, special dental or home nursing benefit. On and after Jan. 1, 1947, however, the restricted content of the general dental or special dental benefit must include at least (1) examination (including X-rays) and diagnosis, (2) prophylaxis, (3) extraction of teeth which are considered by the dentist and an attending physician to be or likely to be injurious to the general health of the individual and (4) treatment or acute diseases of the teeth, their supporting structures and adjacent parts, including fractures of the teeth or jaw. He may also fix an age above which the restrictions on content shall apply.

As to the home nursing benefits, restriction of content may limit the service to part time care on an hourly or visit basis or may limit the types of cases for which such benefits shall be available, or the maximum amount of service per case, or otherwise.

The maximum number of days in any benefit year for which an individual may be entitled to hospitalization will be sixty (thirty in the bill introduced in the Seventy-eighth Congress). This maximum may be increased to not more than one hundred and twenty days in a calendar year if funds are adequate.

No application for hospitalization benefits will be valid with respect to any day of hospitalization if filed more than ninety days after such day, or with respect to any day of hospitalization more than thirty days following the diagnosis of tuberculosis or psychosis, or with respect to any day in a hospital or other institution for mental or nervous disease or tuberculosis.

Likewise the Surgeon General, after consultation with the Advisory Council and with the approval of the Federal Security Administrator, may limit for any calendar year or part thereof the cost of laboratory benefits. Such limitation may relate to a class of services, supplies or commodities, to maximum payments per beneficiary in a benefit year, to a specified fraction of the cost or to combinations thereof.

Proposed Method of Administration

The bill provides that the Surgeon General shall perform the duties imposed on him under the supervision and direction of the Federal Security Administrator and after consultation with the Advisory Council **as to questions of general policy and administration**. He will be authorized to take all necessary steps to arrange for the availability of the benefits provided. He will be authorized, after consultation with the Advisory Council **as to questions of general policy and administration** and with the approval of the Administrator to negotiate and periodically renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any state or political subdivision, and with other appropriate public agencies. He may, too, make such agreements or arrangements with private persons or groups of persons to utilize their services and facilities and to pay fair reasonable and equitable compensation therefor. He may negotiate and periodically renegotiate agreements or cooperative working arrangements for the purchase or availability of supplies and commodities necessary for the benefits provided in the bill and to enter into contracts for such services, facilities, supplies and commodities.

Except with respect to state or local areas for which other arrangements have been made, the Surgeon General will be directed to appoint local area committees to aid in the administration of the part of the bill relating to compulsory health insurance. These committees will include representatives of persons entitled to receive services and benefits, the practitioners, the groups of practitioners, institutions and agencies furnishing services as benefits, and other persons informed on the need for, or provision of, personal health services. Such committees, the bill provides, must be consulted at frequent intervals and must be kept informed by the local area officers of the Public Health Service with respect to arrangements for the availability of benefits and policies to be followed.

The Surgeon General will be directed to give priority and preference to utilizing the facilities

of state and local departments or agencies on the basis of mutual agreements with such departments or agencies. He may delegate to any officer or employee of the United States Public Health Service or of any federal, state or local cooperating department or agency such of his powers and duties, except the prescribing of rules and regulations, as he may consider necessary and proper. He may, after consultation with the Social Security Board, after consultation with the Advisory Council **as to questions of general policy and administration**, and with the approval of the Federal Security Administrator, prescribe and publish such rules and regulations and require such records and reports, not consistent with other provisions of the bill, as may be necessary.

The Surgeon General will be required to make a full report to Congress, at the beginning of each regular session, of the administration of the functions devolved on him by the bill, and such reports must include "a record of consultation with the Advisory Council, recommendations of the Advisory Council, and comments thereon."

Relation to Workmen's Compensation Benefits

No individual will be entitled to any personal health service benefits with respect to any injury, disease or disability on account of which any medical, dental, home nursing, laboratory or hospitalization service is being received, or on application would be received, under a workmen's compensation plan for the United States or of any state.

Benefits for Noninsured Persons

Benefits may be extended to noninsured persons on behalf of whom equitable payments are made or assured by public agencies of the United States, the several states, or any of them or of their political subdivisions. The bill specifically extends this provision to groups of persons for whom the Congress makes provision under the Social Security Act and other acts of Congress.

Additional Benefits in Contemplation

The Surgeon General and the Social Security Board will be jointly given the duty of studying and making recommendations as to the most effective method of providing dental, nursing and other benefits not already provided for and of reporting their recommendations as to legislation from time to time but not later than two years after the enactment of this bill. The studies and recommendations will relate to expected costs for the additional benefits and a desirable division of the costs between (1) financial resources of the social security system or other public fund

and (2) payments to be required of beneficiaries receiving such benefits. Specifically, the Surgeon General and the Social Security Board are mandated to study and make recommendations as to needed services and facilities for the care of the "chronic sick" afflicted with physical ailments and for the care of individuals affected with mental or nervous diseases, recommendations as to legislation to be submitted from time to time but not later than three years after the enactment of this bill.

Grants-in-Aid for Medical Education, Research and Prevention of Disease and Disability

With the exceptions noted, the provisions in the pending bill authorizing grants for medical education, research and prevention of disease and disability are identical with those that were contained in the original Wagner-Murray-Dingell bill. Under these provisions the Surgeon General will be authorized to administer grants-in-aid to nonprofit institutions and agencies engaging in research or in undergraduate or postgraduate professional education. Such grants will be made with respect to each project (1) for which application has been received from a nonprofit institution or agency, stating the nature or the project and giving the reasons for the need of financial assistance in carrying it out, and (2) for which the Surgeon General finds, with the advice of the Council and **after consultation with other federal departments and agencies concerned with research or professional education** that the project shows a promise of making valuable contributions to the education or training of persons useful to or needed in the furnishing of medical, **dental, nursing** hospital, **laboratory**, disability, rehabilitation and related benefits, or to human knowledge with respect to the cause, prevention, mitigation or method of diagnosis or treatment of disease and disability.

Another new provision would make it mandatory that the Surgeon General and the Advisory Council give preference and priority, during the five year period beginning Jan. 1, 1946, to grants-in-aid with respect to projects to aid servicemen seeking postgraduate education as medical or dental practitioners or training for administration of personal health services, disability benefits, rehabilitation services and related services.

To finance this part of the program a certain percentage of amounts expended for benefits from the social security trust fund will be set aside. The amount to be set aside, the bill provides, will equal 1 per cent of the total amount expended for benefits from the trust

fund, exclusive of unemployment insurance benefits, or 2 per cent of the amount expended for personal health service benefits after the latter benefits have been payable for not less than twelve months, whichever is the lesser, in the last preceding fiscal year.

Existing Prepayment Plans

Senator Wagner believes that the enactment of S. 1050 will not necessarily result in the displacement of existing prepayment medical service and hospitalization plans. In the statement that he made to the Senate when the bill was introduced, he said:

There has been much misunderstanding about the part that voluntary hospitals, group service organizations, existing voluntary insurance or prepayment plans and similar agencies may play in the social insurance system. Let me emphasize that our bill makes a place for them, so that they can continue their good work. All qualified hospitals, all qualified medical groups or organizations, will be able to participate in the program as organizations that will furnish services to the insured persons who choose them, they will receive fair payments for the services they furnish as insurance benefits and they will have enlarged opportunities to be service agencies for particular groups or for their communities. This applies to service organizations created by trade unions, consumer groups, employers, nonprofit community groups, churches, fraternal associations, groups of doctors or individual doctors, medical societies or many other kinds of sponsors or combinations of sponsors. The bill not only provides for utilizing existing service organizations but it also encourages the creation of new ones.

The Blue Cross hospital insurance plans will be able to continue to act as representatives of the participating hospitals and the community groups that own or manage the hospitals, and they will have large opportunities to be important public organizations that facilitate the administration of vital parts of the insurance system. The same will be true for many other community and public organizations.

Medical service groups (private clinics, salaried staffs of hospitals, group-service plans such as the Kaiser or the Ross-Loos plan) furnishing service under the social insurance system would be as free as they are today to select their own staffs and their own method of paying physicians and others on their staffs, irrespective of the method of payment which prevailed among the individually practicing physicians or dentists of the local area.

The bill itself, however, does not specifically mention existing prepayment medical service and hospitalization plans. It does direct the Surgeon General, after consultation with the Advisory Council as to questions of general policy and administration, and with the approval of the Federal Security Administrator, to make agreements or arrangements with private agencies or institutions, or with private persons or groups of persons, to utilize their services and facilities. To what extent the importance and effectiveness of existing plans could be preserved under such agreements or arrangements is a matter about which many will entertain serious doubts.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

Physicians are frequently asked by patients whether tobacco, or nicotine, used excessively or even in moderation, is harmful to the circulatory system. Herewith follows a brief summary of the effect of smoking tobacco on the cardiovascular system by Grace M. Roth, Ph.D., Rochester, Minnesota. This summary is divided into two parts, the second of which will follow at a later date.

"During the last century the effects of long-continued use of tobacco on the heart and peripheral blood vessels of man have been investigated widely. The clinical, physiologic and experimental data have been concerned with such problems as the etiologic relationship of the smoking of tobacco to organic cardiovascular disease, the type and degree of change that occur in the cardiovascular system as a result of smoking and whether the mechanical act of smoking, the cigaret paper, the tobacco smoke or nicotine produces these changes.

"The use of tobacco has long been suspected of being an etiologic factor in cardiovascular disease and different types of investigation have been carried out to prove or disprove this relationship.

Heart

"Various clinical surveys have been made to determine the incidence of smoking of tobacco among patients with angina pectoris. Johnson reported that 70 per cent of sixty patients who had fatal angina pectoris were smokers. A few years later White and Sharber found that in a group of 1,500 patients only 24.4 per cent of the patients with angina pectoris used tobacco to excess in contrast to 33.5 per cent of the patients without angina pectoris who smoked excessively. However, Glendy, Levine and White did find that 93 per cent of their group of eighty-eight men less than forty years of age who were suffering from coronary disease were smokers. Likewise, English and Willius, who examined 1,000 clinical records, found that a greater incidence of coronary disease occurred among smokers than among non-smokers in the younger age group, that is, among patients less than fifty years of age and perhaps also among those in the age group of fifty to fifty-nine years. Willius

in 1942 further stated that it was clear that the incidence of coronary disease increased with the degree of smoking.

"Experimental efforts to produce arteriosclerotic changes in the heart and aorta by subjecting animals to tobacco smoke for long periods of time or by subcutaneous or intravenous injections of solutions of tobacco for a considerable length of time have not proved successful.

"As early as 1914 investigators using the electrocardiogram studied the effect of toxic doses of nicotine on the hearts of dogs and rabbits and observed nodal rhythm, auricular flutter and heart block. When similar studies were made on normal men an increase in the heart rate and a slight lowering of the T waves only were encountered. However, Neuhof, in 1916, reported a case in which sinoauricular heart block was the result of overindulgence in tobacco. More recently Barrow and Ouer in 1943 observed the electrocardiograms of 100 normal men before and after vigorous exercise; three-fifths of these men were smokers. Changes in the P wave in lead CF and in the T waves in the standard leads were found more frequently among the smokers than among the non-smokers. Graybiel, Starr and White found during the inhalation of tobacco smoke an increase in the blood pressure and heart rate in 80 per cent of forty-five persons of varying ages, some of whom had heart disease. They also observed lowering or inversion of the T waves in the electrocardiogram, which was similar to that observed with atropinization. They attributed this change to the action of nicotine on the cardiac ganglia.

"Before and since the use of the electrocardiogram many papers have been written on tobacco heart or tobacco angina. There is still some diversity of opinion as to whether this is a definite clinical entity or whether it is the effect of smoking on patients who already have coronary heart disease. The first prerequisite for such a diagnosis is that smoking must be excessive and must have continued for a long period. In 1915 Allbutt, who reported three cases, distinguished tobacco angina pectoris from true angina pectoris by the excessive violence and length of the attacks. Moschcowitz in 1928 confirmed this observation and made further suggestions concerning the differential diagnosis as follows: The pains of tobacco angina are more likely to arise during complete rest and may even wake the patient from a sound sleep in contrast to those of true angina which are induced by exertion especially after a meal or by emotion. In some instances the absence of all change in facial

color, the absence of physical signs or changes in the pulse rate during the attack, the lack of myocardial change as shown by the electrocardiogram and the freedom from attacks with cessation of smoking further help to distinguish this condition from true angina pectoris. He as well as Aikman and others has noted an apparent sensitization which was characterized by the development of slight pain when the patient was in an atmosphere of tobacco smoke. He expressed the opinion that there are two varieties of tobacco heart: (1) that in which evidence of cardiac injury is not present and (2) that in which the signs are suggestive of the intraventricular conduction disturbance associated with coronary and aortic disease. He also pointed out that relief of attacks may not occur immediately after cessation of smoking. Golston in 1937 reported the cases of two excessive smokers. One was an example of unifocal irritation; on cessation of smoking the patient improved in general health and was no longer heart conscious. The second one was an example of multifocal irritation in which onset and remission were sudden. The only treatment was removal of tobacco. As a result of the improvement in these two cases he agreed with Cornwall and suggested that tobacco heart appeared to be mostly a matter of symptoms and functional disturbance. Birk and Huber, in 1939, cited three cases (one that of a woman) in which they felt that angina pectoris was caused by excessive smoking. Before the cessation of smoking the electrocardiograms were definitely abnormal but reverted to normal after cessation of smoking.

"White stated that in a few cases of coronary heart disease the use of tobacco has been known to precipitate or to aggravate angina pectoris and to cause tachycardia, temporary changes in the T waves of the electrocardiogram and a harmful effect on the coronary circulation. However, in one healthy young man the inhalation of tobacco smoke has been observed to cause temporary dizziness and inversion of the T waves in leads I and II of the electrocardiogram so that they resembled for a few beats the T waves of coronary heart disease. Whether this change is to be attributed to excessive stimulation of the sympathetic nerves, to coronary arterial constriction or to direct toxic myocardial effect, he and his colleagues do not know but they were inclined to accept the first explanation. Thus White expressed the belief that there is after all such a condition as 'tobacco heart' but it is a state of functional derangement of the heart and not an organic heart disease.

"In an attempt to determine the mechanism by which the smoking of cigarets produces angina pectoris Ralli and Oppenheimer measured the peripheral circulation by means of the plethysmograph during smoking. They found that in patients who were predisposed to angina pectoris smoking induced peripheral vasoconstriction and at the same time elevation of blood pressure occurred which preceded the onset of precordial pain. They, therefore, suggested that generalized vasoconstriction was present in which the coronary arteries participated. In contrast Graybiel, Starr and White suggested that when attacks of angina pectoris were precipitated by smoking such attacks were not due to coronary vasoconstriction but rather to a sudden increase in the work of the heart as shown by the increase in blood pressure or heart rate or both.

"It is interesting to note that previous to these observations Langley and his associates found that an increase or decrease of the blood pressure alone did not cause changes in the electrocardiograms of animals. They increased the blood pressure by clamping the aorta immediately below the diaphragm and the decrease of the blood pressure was accomplished by increasing the intrathoracic pressure by insufflation. Electrocardiograms, taken before, during and after these measures, were unchanged.

Hypersensitivity

"Much investigative work has been done to establish the fact that hypersensitivity to tobacco exists in cases of thrombo-angiitis obliterans and to a lesser extent in cases of coronary heart disease. Harkavy and Sulzberger obtained an allergic skin reaction to nicotine-free tobacco extract in approximately 80 per cent of their group of cases of thrombo-angiitis obliterans and in approximately 40 per cent of their group of cases of coronary heart disease. Sulzberger has suggested that since certain allergens involve certain tissues and even that tissue in certain definite areas only, tobacco may affect the vascular apparatus. Green also has given some support to this theory. In contrast Maddock, Malcolm and Collier could not demonstrate a consistent difference in the responses of cutaneous temperature of the extremities, blood pressure and pulse rate to smoking of persons who showed skin sensitivity to tobacco from those who did not. They also demonstrated that smoking had the same effect on women as on men. This was of particular interest in view of the fact that thrombo-angiitis obliterans is observed infrequently among women and that disease of the coronary arteries

is less common in women than in men, tends to appear considerably later in life and is uncommon in the absence of hypertension. Trasoff, Blumstein and Marks found that the incidence of positive skin tests to tobacco extracts is greater among patients who are known to have some allergic condition than among patients who have thrombo-angiitis obliterans and coronary heart disease. Westcott and Wright also confirmed these findings. Although thrombo-angiitis obliterans and to a less degree coronary heart disease seem to have a statistical relationship to the smoking of tobacco, experimental and clinical evidence of these and other studies indicates that smoking of tobacco most likely is only a contributory factor and not an exciting one."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

COMMUNIQUE

May 20, 1945

To the Editor:

Another of your interesting and most welcome "Random Thots" arrived a couple of days ago and, as usual, was greatly appreciated. Thanks to you and the other members of the Society for your good work.

Censorship is still very strict but we are very busy. This is a much more interesting tour of duty than the time I spent in the Aleutians. I had been hoping to meet someone from Arkansas and a few days ago while talking to a group of medical officers, I asked if any were from Arkansas. Dr. Charles Paddock, a native of Fayetteville, spoke up and we had a very interesting conversation. No doubt there are others in this area and I hope to meet more of them.

The news of Germany's surrender was welcome news. Now we can concentrate on Japan until they are willing to throw in the towel. The end may not come in a matter of weeks, or even months, but even the Japs should be able to read the "handwriting on the wall."

Judging from Senator Johnson's speech on changing the name of Arkansas, I'm inclined to believe the name of our state will continue to proudly remain Arkansas.

Sincerely,

Robert F. Hyatt,
Capt., M. C.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THAT diabetics are prone to acquire tuberculosis is not a new observation, but present-day circumstances have given it a new importance. If the opportunity for effective treatment of tuberculosis is not to be lost, this sinister association must be kept in mind by the doctor. The way to safety lies in considering the possibility that tuberculosis may be now, or at any time become, a complicating factor with every case of diabetes.

DIABETES AND TUBERCULOSIS

The significance of the association of diabetes and tuberculosis is accentuated by the continued rise in the frequency of diabetes and the increase in the incidence of pulmonary tuberculosis in persons with diabetes in spite of the decline in the tuberculosis mortality rate in the general population.

Reports from American clinicians made over a period of years indicate that tuberculosis occurs four times as frequently in diabetic persons as in the general population. The age of the diabetic patient is important. One study in Massachusetts showed that tuberculosis was more than 13 times as frequent among those who acquired diabetes before the age of 15 as it was among a corresponding group of school children, while among adolescent diabetic patients the incidence was 16 times as great as in a corresponding high school group.

Several theories have been proposed to account for the predisposition of diabetic persons to tuberculosis. Of these the one which the evidence seems to favor is that Vitamin A deficiency plays a part. Since a Vitamin A deficiency usually occurs in the presence of diabetes, this lack may explain in a large measure the increased susceptibility of diabetic patients to tuberculosis. Lack of Vitamin A causes specific pathologic changes in the mucosa of the respiratory system which favor the invasion of bacteria into the lung and bronchial tissues.

A wide discrepancy exists between the estimated number of cases of diabetes associated with tuberculosis and the number of such patients who are admitted to tuberculosis hospitals. Failure to hospitalize these patients in specialized institutions carries serious implications relating to

the welfare of the patient and to the public health. The reasons for this failure may be (1) lack of diagnostic consciousness, (2) improper interpretation of symptoms, (3) incomplete diagnostic investigation, (4) asymptomatic forms of pulmonary tuberculosis. The higher recovery rate of persons with early tuberculosis as compared to those with advanced tuberculosis justifies a plea for an early diagnosis of this condition in diabetic patients.

Experience has shown that the best attitude is to anticipate the possibility of tuberculosis as a complication. A tuberculin test should be given to all persons with diabetes. This test should be repeated annually as long as it is negative. For those who react positively to tuberculin there should be a chest roentgenogram every year at least. Examination of the sputum should be carried out for all patients with a productive cough and if the roentgenogram of the chest indicates reason for suspicion, fasting stomach contents should be aspirated five successive times and examined by culture or by the inoculation of guinea pigs.

The percentage of diabetic patients entering the tuberculosis hospitals with minimal tuberculosis seems to be unduly low and may be attributed to a lack of diagnostic suspicion on the part of the physician treating the diabetes. The emphasis formerly placed on the lack of subjective symptoms of diabetic patients with active pulmonary tuberculosis is no longer valid since mass X-ray surveys have revealed that asymptomatic tuberculosis also exists among nondiabetics. Several authors have observed that cavitation is frequent when pulmonary tuberculosis is complicated by the presence of diabetes. Other com-

plications except that of spontaneous pneumothorax occur less frequently than they do in non-diabetic patients with tuberculosis.

The management of diabetes in the presence of tuberculosis has evolved with the trend in diabetic treatment. In the authors' experience it was found that in patients, who were given a well planned diet and adequate amounts of insulin, slight glycosuria and hyperglycemia not exceeding 200 mg per hundred cubic centimeters are compatible with favorable therapeutic response as far as pulmonary tuberculosis is concerned. Improvement in the pulmonary condition of patients belonging to this group compares favorably with that recorded for tuberculous patients whose blood sugar was kept on a practically normal level.

Although it may appear heretical in the treatment of tuberculosis the authors are of the opinion that reducing the diet for overweight diabetic patients with pulmonary tuberculosis is as justifiable and practicable as for nontuberculous obese persons with diabetes. The administration of massive doses of Vitamin A from 150 thousand to 200 thousand U.S.P. units daily may serve as a useful adjunct in the management of diabetes mellitus complicated by pulmonary tuberculosis.

The indications and contraindications for collapse therapy are the same for diabetic as for nondiabetic tuberculous patients. Because of the frequency with which empyema complicates artificial pneumothorax in persons with predominantly exudative and caseous tuberculous lesions of recent origin, the use of this measure is rather limited for tuberculous diabetic patients.

An analysis of the reports of ten American clinicians based on the observations of 17,358 cases of diabetes indicates a higher incidence of tuberculosis in diabetic persons than in the general population of the United States.

The fact that an unusually high percentage of diabetic patients who acquire tuberculosis are not adequately treated for their pulmonary disease before it reaches the far advanced stage calls for an urgent revision of the diagnostic approach to this problem.

During the period covered by this study 115 tuberculous diabetic patients were discharged from Muirdale Sanatorium. On discharge eight of the 17 persons with moderately advanced pulmonary tuberculosis were classified as apparently arrested, quiescent or improved, and nine were unimproved or had died. Of the 96 persons in the far advanced group 14 reached the stage where their disease was apparently arrested,

quiescent or improved, while 82 individuals remained unimproved or died. These therapeutic results are less favorable than those recorded for nondiabetic patients with moderately advanced and far advanced pulmonary tuberculosis.

Diabetes and Tuberculosis (with a review of the literature), Andrew L. Banyai, M.D., and Anthony V. Cadden, M.D., Archives of Internal Medicine, December, 1944.

OBITUARY

EUGENE A. CALLAHAN, age 68, Carlisle, died May 29th. Born at LaGrange, Kentucky, December 6, 1877, he graduated from the University of Arkansas School of Medicine in 1903 and had practiced at Carlisle for his entire professional life. He was president of the State Medical Board of the Arkansas Medical Society and of the Alumni Association of the University of Arkansas School of Medicine; vice-president and chairman of the board of the Citizens Bank, Carlisle; a member of the Arkansas Selective Service Board of Appeals and a member of the various Masonic bodies. He had represented his county medical society as delegate to the Arkansas Medical Society on many occasions and had held all the offices in his county medical society. He was a member of the Carlisle Methodist Church. Surviving relatives are his wife, the former Miss Louise Sanders, to whom he was married December 21, 1904, and two daughters.

WILLIAM T. BRADLEY, age 71, Blackton, died May 30th. Born in Alabama, he graduated from Chattanooga Medical College in 1903 and had practiced in Monroe County for over 40 years. Surviving relatives are his wife and four sons.

GEORGE DANIEL COUNTS, age 73, died at his home in Wesley April 18th. A life-resident of that community, he had practiced medicine there since his graduation from Marion-Sims College of Medicine, Saint Louis, in 1897. He was a member of the Church of Christ. Surviving relatives are his wife, three sons and two daughters.

CLYDE B. CALLEN, age 61, Fayetteville, died June 8th after a prolonged illness. He graduated from the University of Arkansas School of Medicine and practiced in Madison County before locating at Fayetteville in 1921. He was a fellow of the American Medical Association. Surviving relatives are his mother, a son, a brother and two sisters.

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EDITORIAL

JOURNAL STATES WAGNER BILL IS STILL SOCIALIZED MEDICINE

Senator Wagner's emphatic assertion that his newly-fostered social security legislation, providing a program of vast medical care and hospitalization insurance, is not socialized medicine brought an equally emphatic protest from The Journal of the American Medical Association.

In its June 2nd issue. The Journal says: "Senator Wagner went so far as to say that 'health insurance is not socialized medicine; it is not state medicine.' With this pronouncement most people with any understanding of the situation will differ. They will insist that compulsory sickness insurance with federal control is both socialized medicine and state medicine." Continuing, The Journal's editorial says:

"The section of greatest interest to the medical profession at this time is section 9, which would establish a national sickness insurance system. The proponents of the measure minimize its compulsory aspect in every way they possibly can. Nowhere is the word 'compulsory' used. . . . Senator Wagner emphasizes freedom of medical practice, which he says is carefully safeguarded

because each insured person is entitled to choose his own doctor. But he must choose his own doctor from among the physicians or groups of physicians in the community who agree to go into the insurance system. Certainly the insured person cannot secure the application of any of the funds that he has paid for the payment of a physician who is outside the system. The statement is made that 'the participating doctors are likewise free to choose the method through which they are to be paid from the insurance fund.' As a rule, they must choose as a group either a fee-for-service plan with a fee table, a capitation fee or a salary. In the summary of the bill released by Senator Wagner the statement is made that 'the Surgeon General of the U. S. Public Health Service—a doctor—would administer the technical and professional aspects of the program.' This version of the Wagner-Murray-Dingell bill places tremendous authority in the hands of the Surgeon General, as was placed by previous versions. This time there is to be a National Advisory Medical Policy Council, to be appointed from panels of names submitted by professional and other organizations concerned with medical services, education and hospitals and to include also a representative of the public. This council is wholly advisory and without authority. Incidentally, there is nothing in previous law that says the Surgeon General of the U. S. Public Health Service must be a physician. . . .

"Senator Wagner points out that he has consulted this time with the American Federation of Labor, the Congress of Industrial Organizations, the Physicians Forum, the Committee of Physicians for the Improvement of Medical Care and the National Lawyers Guild, among other organizations, in obtaining suggestions for modification of his previous version. 'He has not consulted with the American Medical Association or, as far as is known, with any of the members of its representative bodies or councils. The so-called Physicians' Forum is a group of several hundred physicians, mostly inclined toward communism and practically all living in New York City. The Committee of Physicians for the Improvement of Medical Care, once known as the Committee of 400, now maintains a mailing list of around 1,000 physicians and is actually controlled by an inner group of a few physicians who do not in any way represent a majority of medical opinion. Thus the bill completely disregards the majority opinion of the 125,000 physicians who constitute the American Medical Association and who provide the major portion

of medical practice for the people of the United States. The bill also disregards the 60,000 physicians now in the armed forces who have sacrificed as much as any other group in the country in the great war in which our nation is now engaged. This obstinacy is typical of the manner in which Senators Wagner and Murray and Representative Dingell have from the first endeavored to impose their notions regarding the care of the public health and of the sick on the people of the United States."

WOMEN'S CLUBS TO CHECK UP

Local health officers throughout the country had better check up on their p's and q's, for they are about to have a thorough going-over by local representatives of the General Federation of Women's Clubs.

From Washington comes word that State health chairmen of the Federation, representing twenty states, met at the National Institute of Health in March for a week's training in the programs of the United States Public Health Service. These sessions are preliminary to a nation-wide check-up on the efficiency of local health departments with the readily comparable evaluation schedule of the American Public Health Association to be used as a standard.

Not only are these estimable ladies about to check-up on what has been going on, but they are evidently to be used as the spearheads of a drive to establish local health units for the whole country, to be followed by the establishment of a system of hospitals accessible to all the population.

Thus, the club women are apparently expecting to bend their energies toward the establishment of the national health program envisaged in the recent interim report of the Pepper committee and supported by Surgeon-General Thomas Parran, Jr., of the U.S.P.H.S.

Doctor Reginald M. Atwater, Executive Secretary of the American Public Health Association, promised the club women that if they would send their evaluation forms to the New York office of A.P.H.A., he would advise them on the strong and weak points in their local health systems. Doctor Atwater mentioned a book, "Local Health Units for the Nation," soon to be issued by the A.P.H.A. in cooperation with the Commonwealth Fund. This volume, he said, would give state-by-state plans for a health service to reach all people on the basis of one full-time

health unit for each fifty thousand of population.

It looks like real action at last, gentlemen.

—New York Medicine, May 5, 1945.

EDITORIAL COMMENT

The Wagner-Murray-Dingell bill of 1945, S. 1050, has been introduced in the Senate by Senator Wagner and the same bill has been introduced in the House by Congressman Dingell as H. R. 3293. The Senate bill has been referred to the Committee on Finance and the House bill has been referred to the Committee on Ways and Means. Section 9 of the bill, which is primarily of interest to the medical profession, has been analyzed by the Bureau of Legal Medicine and Legislation of the American Medical Association and appears in full in this issue of The Journal. While The Journal and the Journal of the American Medical Association will endeavor to keep physicians informed on developments, each physician is urged to write his Senator for a copy in order that he may read and study the bill in its entirety.

RANDOM THOUGHTS OF THE SECRETARY

May 21st. Tonight speaking to the staff on a pet subject, the roentgen therapy of subdeltoid bursitis, and thence to visit with Blake Scott, of Prescott, New Hebrides and Leyte, and the tales of a hard-fought war by those in the Inspector-General's Department carry on to a late hour, but none more strange than the negro soldier, AWOL for three months on the New Hebrides, yet paid each pay day.

May 24th. What a day! Churchill resigns, the Arkansas State Supreme Court is threatened and Crigler tells the OPA that violations of the used car ceiling prices must be handled his way.

May 29th. With President Archer and Council Chairman Thompson attending the executive meeting of the Arkansas Hospital Association, an organization now enthused over state-wide application of prepaid hospital care and a hospital survey, all of which forebodes work for physician committeemen during the hot summer days ahead.

June 3rd. In appreciation of a swell girl who has endured twenty years of married life with our idiosyncrasies.

June 8th. Early this morning to meet the missus arriving on the Rocket at Booneville, perhaps the only place left where the ticket agent answers the telephone saying "depot."

June 12th. Hearing the experiences and activities of Alcoholics Anonymous, an organization which is accomplishing wonders in the rehabilitation of alcoholics and is entitled to enthusiastic cooperation from the practicing physician.

June 13th. Comes Jim McKenzie, having flown from England by way of Iceland, Greenland and Newfoundland but to our greater envy has taken off, flown and landed a B-17.

PROCEEDINGS OF SOCIETIES

The Fifth Councilor District Medical Society met in dinner session at Magnolia May 22nd for the following program:

"Gastroscope: Its Use in the Examination of the Stomach," W. Decker Smith, Texarkana, and "Plasma Fractionation: Its Use in the Diagnosis and Treatment of Disease," S. George Wolfe, Shreveport.

Mr. Herbert Parker entertained the Craighead-Poinsett County Medical Society at dinner May 23rd with Edmund Harding speaking on "Vitamins."

J. H. McCurry, Secretary.

Mississippi County Medical Society has elected the following officers: President, T. F. Hudson, Luxora; Vice-president, E. C. Budd, Blytheville; Secretary-treasurer, P. W. Turrentine, Osceola; Delegate, L. L. Hubener, Blytheville, and Alternate, R. L. Johnson, Bassett.

Craighead-Poinsett County Medical Society met in dinner session at Jonesboro June 7th with W. E. Graham, Hot Springs National Park, discussing the treatment of syphilis and gonorrhea.

J. H. McCurry, Secretary.

Sebastian County Medical Society met June 12th for a program by Alcoholics Anonymous.

D. W. Goldstein, Secretary.

Benton County Medical Society met in dinner session at Siloam Springs June 14th with the program presented by C. S. Wilson.

Geo. M. Love, Secretary.

SUMMER DIARRHEA IN BABIES

Casac possesses outstanding merit in the treatment of diarrhea and loose stools, in infants and in children. The promptness with which Casac checks diarrheal stools is an important factor in arresting the dehydration which makes infantile diarrhea so serious a clinical problem. At the same time Casac replenishes calcium lost in the stools. The high protein content of Casac, moreover, aids in promoting tissue-growth in infants who have become wasted as a result of diarrhea. Because of its anti-fermentative action and its growth-promoting constituents, Casac is a particularly effective weapon against the so-called summer diarrheas.

PERSONALS AND NEWS ITEMS

Capt. Charles R. Chestnutt, Little Rock, is now stationed overseas.

Dr. and Mrs. M. J. Kilbury, Little Rock, spent a recent vacation in Saint Louis.

Lt. James F. Lewis, Fayetteville, recently addressed the Payne County Medical Society, Cushing, Oklahoma, on "Vincent's Infections."

Lt. Col. Joseph O. Boydstone, Hot Springs National Park, division surgeon, 5th Armored Division, received the Bronze Star and Purple Heart during the campaign of the division in France, Belgium, Luxemburg and Germany.

Richard W. Miller, Fayetteville, has been discharged from military service and has returned to practice at Fayetteville.

James M. Matthews has moved from Crossett to Morrilton.

Capt. H. K. Carrington, Magnolia, is now hospitalized at Harmon General Hospital, Longview, Texas.

Capt. R. F. Hyatt, Little Rock, is now assigned to the 386th Medical Collecting Company, Camp Gruber, Oklahoma.

Lt. Paul T. Stroud, Jonesboro, is now assigned to the Naval Receiving Station, Orange, Texas.

Lt. Col. Daniel H. Autry, Little Rock, is now stationed overseas.

Capt. J. K. Thompson, Fort Smith, has been awarded the Bronze Star for gallantry in action in France and Germany.

R. B. Robins, Camden, recently took post-graduate work at the University of Michigan, Ann Arbor.

Capt. Jim McKenzie, Hope, is home on leave from duty in the European theater.

Lt. Col. A. M. Washburn, Little Rock, is home on leave from duty in the European theater.

Maj. Fount Richardson, Fayetteville, is now

stationed at Brooke General Hospital, San Antonio, Texas.

H. H. Smith, Fort Smith, spent a recent vacation in California.

HEADQUARTERS 6th ARMORED DIVISION

APO 256, United States Army
28 April 1945

General Orders: Number 75

EXTRACT

Award of Bronze Star Medal, Oak Leaf Cluster

By direction of the President and under the provisions of Army Regulations 600-45, dated 22 September 1945, as amended, in addition to the Bronze Star Medal, previously awarded, the Bronze Oak Leaf Cluster is awarded to:

Lieutenant Colonel James W. Branch, (Army Serial Number 0333113), Medical Corps * * * United States Army. For meritorious service in connection with military operations against an enemy of the United States in France, Belgium, Luxembourg and Germany during the period 1 December 1944 to 25 April 1945. As surgeon of the 6th Armored Division, Lieutenant Colonel Branch has exhibited unusual aggressiveness, courage and ability in supervising and co-ordinating the medical activities of the Division. His humanitarian efforts have greatly facilitated the prompt treatment and evacuation of Allied Prisoners of War and the immediate alleviation of suffering of Displaced Persons. The faithful cooperation and careful devotion to duty displayed by him have been of material benefit and reflects great credit upon himself and the Medical Corps. Entered the military service from Arkansas.

By Command of the Division Commander:
Official.

COMMUNIQUE

May 26, 1945

To the Editor:

Mark Twain used to say, "Everybody talks about the weather, but nobody does anything about it." This is just my way of letting you know that it is hot, humid and sultry here, and nobody does anything about it because nobody can. A few of the officers and men go out each day in the rear of the hospital and get a little exercise; but most of us have observed that the Filipinos, who have lived here much longer than

we, just take it easy. The fellow who first said, "When in Rome do as the Romans do," had more than his share of horse sense.

Our movies the past week have been: "Meet Me In St. Louis"; "Two Down, One to Go"; "To Have and Not to Have," and "See My Lawyer." Most of us liked the third-named picture the best, and all because in it there was a "slow-burning girl." On Monday night, in the film "Two Down and One to Go," the Army explained in a very nice way why I would probably have to stay until there are THREE DOWN. It is a fair enough system, and much better than a certain congressman's plan of FIFO (first in, first out). In the army plan you get points, one for each month in service, one for each month overseas, a point for each combat mission or decoration, and 12 points for each child up to three. Those with the highest number of points will be the first to return to civilian life, provided (always that "provided") you are not essential. It is all a matter of addition, but I think you had better not plan to Meet Me In St. Louis, or any other American city just yet.

We sometimes refer, among ourselves, to our hospital as the 29th Evaporating. This because of the large turnover in personnel. You never know each morning who will be with you and who will not, before the day comes to a close. This has a tendency to draw us all closer together, before we are farther apart. But, as for myself, I just keep doing my job and studying to improve myself. But not like that recent cartoon which showed two cellmates in prison talking together, and the one says proudly to the other: "I'm going to study and improve myself, and when you're still a common thief I'll be an embezzler!"

The late Oliver Wendell Holmes used to say "war is a bore." I used to think that was a good description of things as I find them. But just recently I read that during the last war, Dr. L. P. Jacks, of Oxford University, wrote: "I cannot get away from the feeling that I am in the presence of some colossal stupidity." This is really more like it and I hope the present San Francisco Conference makes an intelligent attempt to do something about this colossal thing of which I am a part. More than one thing is in care of the Postmaster, San Francisco, Calif., these days.

Yours,

Friedman Sisco,
Major, M. C.

CORRESPONDENCE

UNITED STATES SENATE

WASHINGTON, D. C.

May 31, 1945

W. R. Brooksher, M.D., Editor,
The Journal of the Arkansas Medical Society,
602 Garrison Ave., Ft. Smith, Ark.

Dear Dr. Brooksher:

On Thursday, May 24, I introduced with Senator Murray a bill, S. 1050, entitled: "The Social Security Amendments of 1945." The bill provides for "the national security, health and public welfare." Representative Dingell of Michigan introduced a companion bill (H. R. 3293) in the House at the same time.

I am forwarding the bill itself, and a copy of my speech in the Senate for your information and use.

I particularly invite your earnest study of the provisions of the bill relating to health. There is absolutely no intention on the part of the authors to "socialize" medicine, nor does the bill do so. We are opposed to socialized medicine or to State medicine. The health insurance provisions of the bill are intended simply to provide a method of paying medical costs in advance and in small convenient amounts.

During the formulation of this bill, we have benefited greatly from the constructive advice and suggestions of practicing physicians, and of physicians in clinical and teaching positions. Their constructive suggestions have resulted in changes in the bill which we presented in the last Congress. Undoubtedly other changes will be made before this bill is enacted into law. We wish to have it known that we invite constructive suggestions from the medical profession.

In addition, members of the medical profession will be given full opportunity to voice their opinions in open hearings when the bill is considered in Committee.

I hope that you will print this letter in your Journal and that you will join me in urging the medical profession to undertake an earnest study of the actual provisions of the bill. In this way you can help immeasurably in avoiding misunderstanding and misinterpretation of the legislation and in stimulating physicians and medical and hospital organizations to come forward with constructive suggestions and advice.

Sincerely yours,

Robert F. Wagner.

COMMUNIQUE

May 25, 1945
Germany

To the Editor:

I have been on European soil since November 25, 1944. Rapidly up to Luxemburg, where everything was fine, until the "bulge," then back to France, Nancy, Metz, Verdun, then to Belgium, Holland in February, 1945, Roer, Rhine, in Germany since March. My crossing of the Rhine was at Wesel. Have been in Hanover, Germany, for the past five weeks. This is English territory and we expect to move south soon. Our destination is unknown as yet. This is just a note of thanks for "Random Thots" and The Journal. Living good at present on a lake and we have a good "Dutch" chef since Holland. It has been rough in spots.

Faternally,

Wm. C. Magness,
Capt., M. C.,
218 Qm. Bn. Hdqrs.,
APO 350, New York.

COMMUNIQUE

June 2, 1945

To the Editor:

These few lines to say I have an address that should be permanent (loose usage of the word permanent). Practically everything here is devoted to the care of battle casualties so that places me on the surgical service where I hope to absorb some knowledge from some really outstanding men.

Received your nice letter after arriving in the —. Glad to get the news from home and hear that a few of the men are returning to private practice. It puts hopes into the hearts of those who are getting a bit weary of this war out here.

Certainly appreciate you keeping us informed with The Journal and news letters.

Sincerely,

Carl C. Hanchey,
Major, M. C.

COMMUNIQUE

May 1, 1945.

To the Editor:

Am enjoying duty in Paris. See A. F. DeGroat, who is now a lieutenant colonel, occasionally. Visited Maj. Sam Phillips from Little Rock a couple of months ago but haven't seen any other Arkansans.

Carroll F. Shukers, Maj., M. C.

WOMAN'S AUXILIARY

Bowie-Miller Medical Auxiliary met May 25 for its annual business meeting and reports, followed by a beautiful memorial service for a valuable member whose death occurred several months ago, Mrs. L. H. Lanier. The meeting and service were held at the home of Mrs. Roy Bassett, 1324 Hickory Street.

The home was decorated throughout with a profusion of beautiful spring flowers, including lilies, gladioli, carnations, roses, snapdragon and other flowers of the season.

Following annual reports, the following new officers were installed to serve during the coming year: Mrs. William Hibbitts, president; Mrs. N. B. Daniel, president-elect; Mrs. Roy Bassett, first vice-president; Mrs. J. H. Rives, second vice-president; Mrs. Allen Collom, third vice-president; Mrs. L. J. Kosminsky, fourth vice-president; Mrs. Ralph Cross, recording secretary; Mrs. A. G. Lee, corresponding secretary; Mrs. Chester Kitchens, treasurer; Mrs. Joe Tyson, historian; Mrs. Reavis Pickett, publicity, and Mrs. R. R. Kirkpatrick, parliamentarian.

During the social hour, refreshments were served by the following hostesses: Mrs. Bassett, Mrs. Brooks Tate, Mrs. E. M. Watts and Dr. Frances Spinka.

The meeting was followed by the impressive memorial service honoring Mrs. L. H. Lanier, which was conducted by the Rev. Bruce H. Price. The rites were held before a beautiful table arranged as an altar on which were white lilies, roses, snapdragons, carnations and baby's breath, with stands of lilies and candles on either side. A picture of Mrs. Lanier centered the table.

Mrs. James Watlington played "Chorale" (Bach), while Mrs. Ralph Cross lit the candles. Mrs. Will Quinn sang "Crossing the Bar," accompanied by Mrs. Watlington. Rev. Price gave a beautiful tribute to Mrs. Lanier, a valuable and much-loved member of the group.

Dr. L. H. Lanier, accompanied by his daughter, Mrs. O'Rear, of Kansas City, was present at the memorial for his deceased wife.

BOOK REVIEWS

The Examination of Reflexes, by Robert Wartenberg. The Year Book Publishers, Chicago.

This book is refreshing especially in that it literally "hops" on the multiplicity of reflexes and the names given them when so many of them are duplications. Author explains very clearly what the different reflexes mean and in one instance shows that there are twenty different foot

reflexes giving exactly the same information and these reflexes carry the names of almost twenty different men. There seems to have been an effort to attain some sort of immortality by having a reflex bear one's name.

One must be forgiven in the event he is unable to recall instantly what some "name" reflex means because there are hundreds of them. We all will recall the most important ones.

The author demonstrates methods of obtaining reflexes so that there should be no difficulty whatever in making an examination and interpreting abnormal reflexes.

This book should be of value to any physician regardless of what type of work he does.

The Treatment of Peptic Ulcer, by George J. Heuer, M. D., Professor of Surgery, Cornell University Medical College, etc., assisted by Cranston Holman, M. D., Assistant Professor of Surgery, Cornell University Medical College, and William A. Cooper, M. D., Assistant Professor of Clinical Surgery, Cornell University Medical College. Price \$3.00. Philadelphia: J. B. Lippincott and Company, 1944.

The authors observed 1,204 patients with ulcer of the stomach and duodenum in a ten-year period and record their observations and operative statistics. Medical treatment is discussed in detail and chapters are included on the effects of gastroenterostomy and gastric resection upon gastric secretion and the development of malignancy.

Modern Clinical Syphilology, by John H. Stokes, M. D., Prof. of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; Director, Institute for the Control of Syphilis, University of Pennsylvania; Herman Beerman, M. D., Sc.D. (Med.), Asst. Prof. of Dermatology and Syphilology, School of Medicine and Graduate School of Medicine, University of Pennsylvania; and Norman R. Ingraham, Jr., M. D., Asst. Prof. of Dermatology and Syphilology, School of Medicine, University of Pennsylvania. Third Edition, Reset. 1,332 pages with 911 illustrations. Philadelphia and London: W. B. Saunders Company, 1944. Price \$10.00.

The third edition of this book shows extensive revision in the light of new clinical experiences and presents the present-day successful treatment of syphilis, including the use of penicillin, in readable form. This book is recommended for all physicians and, in particular, for the average practitioner who will find all his questions on the management of syphilis answered in this one volume.

Technique in Trauma, by Fraser B. Gurd, M. D., C. M., and F. Douglas Ackman, M.D., D.C., Montreal General Hospital and McGill University. Pp. 68. Illustrated. Price \$2.00. Philadelphia: J. B. Lippincott Company, 1944.

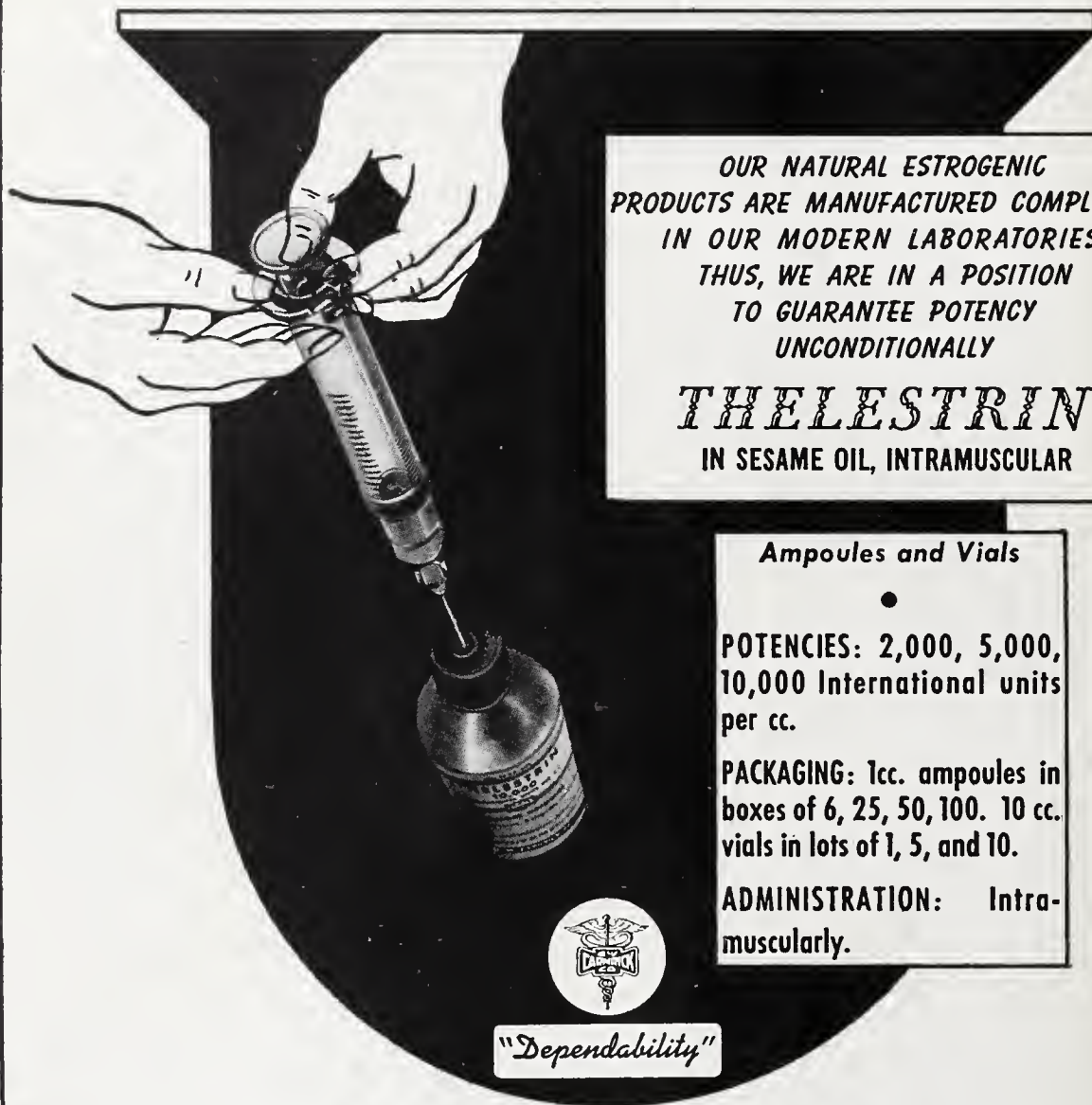
This book is compiled from previous publications of the writers and discusses the management of burns, giving step-by-step procedures used in treatment with a critical analysis of procedures and results. The illustrations are well chosen and add to the merit of the volume.

Ventures in Science of a Country Surgeon, Arthur E. Hertzler, M. D. 298 pages. Published by the author, 1944.

The author states that this book was written as a frank confession of approaching senility, the satisfaction that one can gain by reviewing his past life. This constitutes the best possible summary of the work as a whole, since it details his major triumphs and a few illustrative failures

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during fifty years in the practice of medicine.

This book should achieve a worthwhile position in the library of every practicing physician because of the lessons repeatedly hammered home, such as the necessity for the correlation of surgery with surgical pathology, and the need for every surgeon being so well grounded in fundamentals that unnecessary operations are not advised. An article published many years ago in the Arkansas Medical Journal is given credit for leading him to the discovery of quinine and urea hydrochloride as a local anesthetic agent.

The description of the author's part in exploding the myth of chronic appendicitis, and his fervid pleas for conservatism in pelvic operations are well worth repeated reading. The style is inimitably Hertzlerian, which guarantees several hours of delightful as well as profitable reading.

F. H. Krock, Comdr. M. C., U.S.N.R.

Operations of General Surgery: By Thomas G. Orr, M. D., Professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. 723 pages with 1,396 step-by-step illustrations on 570 figures. Philadelphia and London: W. B. Saunders Company, 1944. Price \$10.00.

This is a very useful book for the general surgeon as it contains the essentials of surgical technic. The book is profusely illustrated which adds a great deal to its value. The text has been made brief and to the point. This book can be recommended to the beginner in surgery as well as to the general surgeon.

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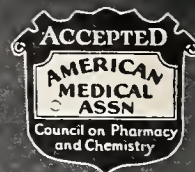
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LITTLE ROCK, ARKANSAS, AUGUST, 1945 No. 3

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No. 3

PREMATURE BIRTH AND NEONATAL DEATH IN ARKANSAS*

I.

In the matter of mere survival, the first year is the hardest. One-tenth of all deaths in Arkansas in 1943 were of babies less than a year old—about as many as those who died in the entire decade of ages 45-54. It is the first month that is the hardest, too, and even the first day—for the 819 babies whose names make up the neonatal death list (deaths in the first month) outnumbered by 100 those who succumbed during the remaining eleven months of that crucial first year. About one-fourth of all infant deaths occurred during the first day.

The trend of infant mortality is downward and at present the rate is apparently about the same in Arkansas as for the United States as a whole—about forty per thousand live births. However, we have reason to believe that infant death registration, particularly of babies dying soon after birth, is incomplete in Arkansas. In 1943 in Arkansas the maternal mortality rate was 7.5 per 1,000 live births for colored—nearly three times the 2.6 for white; the infant mortality rate was 45 for colored and 33 for white, but the neonatal mortality rate was 17 for all colored and only 15 for rural colored as against 19 for white. In one county showing a low neonatal mortality rate there were registered 769 colored births, 752 attended by midwives, with one neonatal death—at least 15 might have been expected.

In 1942, according to data from the United States Bureau of the Census, deaths attributed to prenatal and natal causes accounted for 86 per cent of the deaths under one month in the United

States as a whole and for only 70 per cent of the neonatal deaths in Arkansas. However, an additional 12 per cent in Arkansas (as against 4 per cent for the United States) was attributed to "ill defined and unknown causes"—in many cases because there was no physician in attendance.

Respiratory diseases caused 10 per cent of the neonatal deaths in Arkansas and only 5 per cent in the United States, and respiratory diseases are preventable.

Prematurity caused nearly half of all neonatal deaths, and more than half of the deaths due to prematurity occurred during the first day. Many more occurred during the first week. Prompt action is necessary to save those who can be saved—so prompt that it should begin long before the baby is born.

In the Arkansas State Board of Health in 1943 each death-certificate of a baby a month old or less was matched to the birth certificate. We found that in more than one out of four cases the birth was not registered. The others were studied for place of birth and place of death, attendant at birth and other matters. We found that in most cases the place of birth and death were the same. However, complications of pregnancy undoubtedly sent some mothers to hospitals who would otherwise have delivered at home. The analysis will be continued for deaths occurring in 1944 and 1945.

A questionnaire survey of facilities for the care of premature infants was made in December, 1944, and January, 1945. Of the 80 hospitals answering, 64 had some type of incubator or heated bassinet, with a total of 140 of all types reported. In addition there were 17 available for loan in county health unit offices.

The material obtained in these surveys, together with figures already available in reports of the Bureau of Vital Statistics, will be of great value for studying the problems in the individual counties.

As prematurity plays such a large part in causing infant deaths, a consideration of the causes of premature birth is important. Unfortunately much is obscure in this matter. In very many cases there is no apparent cause. We do know,

REFERENCES

Burke, Bertha S., *Nutrition During Pregnancy; A Review*, J. American Dietetic Assn., December, 1944. Copies may be obtained from the Ark. State Board of Health.

Williams, P. F., *Importance of Adequate Protein Nutrition in Pregnancy*, J.A.M.A., April, 1945, p. 1052.

* Installments one and two in a series of articles on the care of the premature and newborn approved for publication by the Committee on Maternal and Child Welfare and submitted by Dr. Frances C. Rothert, Acting Director, Division, Maternal and Child Health, Arkansas State Board of Health.

however, that toxemia, acute or chronic infections, and the hemorrhagic complications cause many pregnancies to be terminated before term; that falls and other accidents account for some; and that premature delivery is more frequent in multiple than in single pregnancies. There are indications, too, that very young mothers are more likely to have premature deliveries than their older sisters, and that poor nutrition in the mother predisposes to prematurity or immaturity in the infant. The Rh factor is a cause in a percentage of cases.

In the solution of this problem the practicing physicians and the hospitals have the largest part, and there is much that state and local public health workers can do. Each is now doing several persons' work because of the war. But all working together can lighten the burden, and only by cooperative effort can maximum saving of life be achieved. These babies are persons and entitled to their lives. We must not forget that it is primarily because we as Americans believe in the sacredness of human life and personality that we are fighting this war.

II.

The Effect of Maternal Nutrition on the Condition of the Newborn*

Nutritional requirements of women are greatly increased during pregnancy. If the diet is not adequate, both mother and baby may suffer serious results. It has been thought that the fetus develops at the expense of the mother's tissues and dies in case of maternal starvation. It has been difficult to prove otherwise in humans, but a review of the literature indicates that such an idea is false.

In the records of animal experimentation there are many examples of fetal damage due to dietary deficiencies in the mother. At the University of Wisconsin heifers fed a balanced diet were healthy, sleek and consistently gave birth to full term, vigorous young that lived and developed normally. Those heifers fed in incomplete diet had rough coats and produced young that were premature, small, stillborn, or died within a few hours.

In another study, pigs with an iodine deficiency became hairless and usually resulted in death of the fetus.

In Texas, it was observed that if pigs' diets were lacking in Vitamin A, their young were blind, had cleft palates, harelip, misplaced kidneys, or subcutaneous cysts. It was concluded: "That maternal vitamin A deficiency results in congenital blindness seems very likely in the light of these experiments, but how and when the

anomaly is formed are largely questions for the future. These experiments, however, do present a new field of thought and place diet during the early stages of embryonic development in a very important position."

In Cincinnati, Warkany found that when rats were deficient in vitamin A, the young were blind or had deformed eyes. If rats were deficient in riboflavin the young had short bones or there was fusion of ribs, toes, or fingers. A vitamin D deficiency resulted in curved bones and broadened ribs in the young.

The literature presents cases of human fetal rickets thought to be the result of calcium, phosphorus, or vitamin D deficiencies in the mothers. X-ray pictures of newborn have shown poor calcification of teeth when the mother's diets were lacking in calcium or poor in general.

Ebbs and associates at General Hospital in Toronto conducted a study with a large number of expectant mothers. There were 120 who had a poor diet; 90 with poor diet who received eggs, milk, tomatoes, oranges, wheat germ, and Vitamin D capsules; 170 with high incomes were instructed as to what to eat. Those mothers on good or supplemented diets had fewer miscarriages, prematures, stillbirths or deaths before six months of age. Also, the babies had fewer minor or major diseases during the first half year of life.

Burke at Harvard University School of Medicine studied 216 pregnant women. Diet histories were taken and classified as excellent, good, fair, poor. The infants were rated by a pediatrician. Every stillborn infant, all who died within a few days of birth except one, the majority of those with marked defects such as cleft palate, harelip, etc., all prematures and functionally immatures were born to mothers whose diets were inadequate. No woman whose diet was rated good had toxemia during pregnancy. Their babies were longer and weighed more, yet their deliveries were not as difficult as those whose diets were poor, although the babies were smaller.

In England two similar studies were made with over 5,000 and 2,000 expectant mothers. The same conclusions were drawn: adequate nutrition during pregnancy is an important factor in reducing the incidence of stillborns, prematures, neonatal deaths, and perhaps congenital deformities.

What is an adequate diet? Calories need not be increased over the needs of the woman before pregnancy. Therefore, fat and carbohydrate foods will remain the same or in many cases the

fat intake should be lowered as well as rich deserts, gravies, and other high calorie foods. Protein, especially good protein, such as eggs, meat, and milk, should be increased. Also foods which are high in minerals and vitamins. Some doctors suggest lowering the salt intake, especially during the last trimester of pregnancy.

The following "Guide for Meal Planning" will meet the needs of the average expectant mother:

Daily Foods	Amounts
MILK	1 quart
Whole, evaporated, butter-milk, or skim milk	
FRUITS & VEGETABLES	5 or more servings
Potato	1 serving
Green or yellow	1 serving
Tomatoes or citrus fruits	1 serving
Others	2 or a second serving of two of the above
EGGS	1 daily
On days when you do not serve eggs, serve dried beans, peas, or peanut butter	
MEAT, FISH, CHEESE	1 large serving
Serve dried beans, peas, peanuts, or peanut butter when you cannot have meat, fish, or cheese	
BREAD & CEREALS	2 or more whole grain or enriched
(Oatmeal, brown rice, Ralston, Wheatena, Shredded Wheat are whole-grain cereals.)	
BUTTER & MARGARINE	2 or more tablespoons
With Vitamin A added	
Other foods to satisfy the appetite.	

More emphasis should be placed on food needs during pregnancy. More effort and time should be spent in effective nutrition education in the prenatal care program. It is believed that a higher state of maternal nutrition will contribute to not only lowered mortality and morbidity of infants and mothers but to improvements in the child's health and development.

COMMUNIQUE

July 9, 1945

To the Editor:

The June copy of "Random Thots" and my membership card arrived today. Many thanks for them.

There is very little news I can write as things are fairly quiet now with me.

Please keep the state medical Journal coming my way.

Yours,
Robert L. Turnbow,
Captain, M. C.

SENATE BILL 1161—A MENACE TO MEDICAL WELFARE*

MOSE SMITH III
Fort Smith

Senator Robert E. Wagner of New York, and Senator James Murray of Montana, on June 3, 1943, introduced in the Senate, Bill 1161. Since that time there has been much discussion, both for and against Senate Bill 1161, or Socialized Medicine.

If the recommendations in the bill are enacted into law, private medical practice in the United States would be completely abolished. The proposals in the bill are of such magnitude and such sinister menace that, virtually, they are incomprehensible to an American.

The processes proposed in the bill will act as a catalyst in transforming an expanding Federal bureaucracy into an all-powerful totalitarian State control.

The medical profession has been too proud, too overworked with war responsibilities to give necessary attention to basic problems, satisfying itself with the sophistry that it could not happen in the United States.

It is happening. Worst of all it is happening now. The confusion and preoccupation of war-time are obscuring the meaning of its moves. This issue is, more or less, forced. The result will be final.

Senate Bill 1161 provides for two main types of medical work. General medical and Special medical; under which would come laboratory work and hospitalization. These services would be provided for one hundred ten million people in the United States.

This bill puts one man in control—The Surgeon General of the Public Health Service. It gives him the power to do the following things:

- (1) To employ doctors and establish rates of pay;
- (2) To establish fee schedules for services;
- (3) To establish qualification for specialists;
- (4) To determine the number of individuals for whom any physician may provide service;
- (5) To determine what hospitals or clinics may provide service for patients.

Too much power is given to one man. This would completely destroy the American system of medical care.

To do all of this, the Surgeon General would

* Prize-winning essay, 1945 Woman's Auxiliary Essay Contest, high school division.

be provided with three billion dollars yearly. This three billion dollars would come out of the pockets of taxpayers, without their knowing for what the money was spent. Politicians are hiding the meaning of the bill by putting it under the title "Social Security."

The American people are Social Security conscious. The public—including the predominated majority of the medical profession—approves of and desires the maximum of Social Security consistent with personal freedom. This approval ends at the point where private enterprise is threatened and personal initiative is placed in jeopardy.

Senate Bill 1161 is simply foisting on the American people, under the guise of Social Security, a system of Federally controlled medical care.

This proposed system of political medicine is strictly totalitarian in concept. It ignores and runs counter to the basic principles that have placed American medicine in a position of unquestioned leadership; that have given to the American people the most effective and most widely distributed medical care available anywhere at any time.

The proposals include a plan to tax all employers for Social Security 6 per cent of the earnings of all workers (up to \$3,000 per year); payroll deductions of 6 per cent from the income of all employees (up to \$3,000 per year); and for the establishment of a fund of more than three billion dollars per year which I have mentioned previously.

This bill implies that health is all-important and fundamental. That is so, but the most important element in maintaining good health is eating good food so grocery stores might just as well be federalized. It would be much simpler and much more effective! That way the government would be sure that the American people got the right things to eat.

The American may not understand the whys and wherefores of the issue, but he is deeply conscious of and properly appraises the value of individualized service in the effectiveness of medical care. He wants and will demand a freedom of choice when he or members of his family, respectively, is ill. He believes that this choice would be limited and restricted by any effort of the Federal Government attempting to provide medical care.

If this bill were to go into effect people would not be able to choose their own doctors. People feel that their doctors have a certain personal feeling toward them. This is almost necessary for

the harmony of work between the doctor and the patient that must exist.

The people have confidence in their doctors and demand the right to choose them. Although medical charges are considered reasonable, at times people experience difficulty in meeting bills for unusual or prolonged illness. Plans or methods for insurance against the hazards of emergency illness are desirable. This, however, is an economical, not exclusively a medical problem.

This bill would also mean that a doctor would have a certain area in which to work. Any person living within that area would be compelled by law to go to this physician if and when he became ill; despite the fact that he would perhaps be unwilling. No person could have complete faith in a doctor the law said they had to attend. The doctor, too, would be under a strain, knowing that his patients were coming there simply because they had to and not because of their complete confidence in him.

With this bill would come a list of rules governing every doctor employed by the government. This would mean that no physician, qualified by the State could work unless he was in complete harmony with the rules. No doctor can do his best if he has to be in compliance with a regulation every minute. If this bill is passed a doctor would have to be a skilled politician rather than a skilled surgeon.

This bill has another—perhaps the most important factor. That is that students would be discouraged to follow the medical profession. No one would study medicine. There would be no point in doing so. No opportunity whatsoever would be offered. If this bill is passed and becomes a law, medical advancement in the United States would be greatly hampered. Certainly there is nothing we need more advancement in than that of medicine—the saving of human life.

Of course, there are some arguments in favor of the bill that will have to be met. One of them is the inadequate medical care in the rural areas and amongst the negro population of the South. Another is the unanticipated emergency illness amongst the medically indigent group. Still another is failure on the part of organized medicine to take positive action regarding voluntary plans to cope with the inadequate care of the above groups.

The medical profession has, in the past, failed to take the initiative regarding voluntary plans of action to compete with the inefficient medical care among the certain income groups and in

certain geographical areas of the country. Slowly, however, the doctors or the private practitioner is coming to realize that he, as an individual and as a member of a group, must be more conscious of the need for further social gains.

The war has brought out new discoveries in medicine. Discoveries that haven't been explored and that need to be. No one could expect much research to be done if this bill goes into effect. Mainly because only mediocre individuals would tend to do any research whatsoever under this condition. No longer would the better medical minds be attracted to research work.

Under the American system, American physicians have developed the most perfect medical care that has ever been provided for any comparable number of people anywhere at any time.

Free men—with fearless minds—progressively provided a higher and higher quality of medical care. Many of the great historical killing diseases have been conquered. Many of the most deadly of the others are being brought under control. This most effective medical cure is based entirely on individualized service. Socialized medicine would do away with this completely.

The American doctor and the American system of personalized care are not only acceptable, but occupy an enviable position in the esteem of the American people.

Senate Bill 1161 is a menace to medical welfare. But most important, it is a menace to the American people. Do you think a medical bureaucracy would have discovered sulfa-drugs? Do you think a medical bureaucracy would have discovered penicillin and developed it as private medical research has done? Certainly not! And that's only a fragment of the record that medicine has achieved in the past two decades.

Socialized Medicine would hinder research. Medical advancement would, in time, greatly decrease. The American people could not afford to let this happen. This nation, more than any other nation, is rapidly progressing. With it must progress medicine. War has proven that to us only too well.

The case is crystal clear. Its meanings and the implications cannot be ignored.

The American people want none of the national government's meddling in the vital field of medical service. The American people understand and believe in our effective system of personalized medical care.

This isn't just the responsibilities of the doctors. It is the task of every individual—every group—every business and every industry inter-

ested in preserving for the United States the Private Enterprise System. The people of the United States now realize the importance of the result of this bill.

A solution of this problem demands eternal vigilance, sustained efforts, and the utmost in continuing cooperation from all medical groups, every practicing physician, and all the people.

The bill will destroy private initiative, reduce medical practice to a routine groove, kill incentive, hinder if not block the entire course of medical research, put the medical profession and finally all professions into the hands of questionnaire clerks and political job holders, and spell the end, once and for all, of everything that we mean when we say the American way!

In short, Senate Bill 1161, or Socialized Medicine, would simply provide for the political domination of medical progress in the United States. It would be the first important step in completely destroying the American way of living.

COMMUNIQUE

July 1, 1945

To the Editor:

Just a word to thank you for The Journal and other "communications," which reach me regularly, and to give you a new address.

We are setting up here and will be in operation shortly. Are getting an excellent physical plant and the whole setup is as ideal as could be under the circumstances.

Along with everyone else I'm keeping my fingers crossed on this point system and praying it works out inasmuch as I am well above the critical level.

It is nice to get out of New Guinea jungles after 16 months and see a little civilization.

Best regards,

J. B. Holder,
Major, M. C.

COMMUNIQUE

June 27, 1945

To the Editor:

Just arrived yesterday after a tiring journey. I am allowed to say that I came by air and that I am in . . . Don't know much about the setup. Will write more later. Please send me The Journal and also that gossip mongering sheet of yours.

Best regards,

Carl L. Wilson,
Major, M. C.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART
ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M.D.
Chairman, Fort Smith

THE EFFECT OF SMOKING TOBACCO ON THE CARDIOVASCULAR SYSTEM

PART II

Peripheral Blood Vessels

"The existence of vasoconstriction of the peripheral blood vessels may be determined by a decrease of the cutaneous temperatures of the extremities or by a decrease of the velocity of blood flow of the peripheral vessels of the extremities as measured by the plethysmograph. Definite vasoconstriction of the peripheral blood vessels as evidenced by a decrease of the cutaneous temperatures of the extremities has been reported to result from the smoking of tobacco by Maddock and Collier, Barker, Wright and Moffat, Johnson and Short, Lampson, and Moyer and Maddock. With the exception of Shulman and Mullinos investigators generally have reported that smoking of tobacco causes a decrease of peripheral blood flow, as measured by the plethysmograph. Shulman and Mullinos attributed the decrease in blood flow to deep breathing. Similarly Smithwick reported that blood flow through the fingers was decreased by immersion of the contralateral hand in cold water, by a loud noise or even by an unpleasant thought. On the other hand, Weatherby found that altered respiratory movements associated with smoking were of relatively little importance in bringing about the fall of cutaneous temperature of the extremities. However, it was necessary to avoid other physiologic and psychic stimuli.

To determine whether the mechanical act of smoking was a factor in the production of vasoconstriction of the peripheral blood vessels, study of persons puffing on an unlighted cigaret, paper tube or empty pipe and smoking nicotine-free cigarets was carried out by Maddock and Collier, Wright and Moffat, Moyer and Maddock, Weatherby, Evans and Stewart, and Roth, McDonald and Sheard. Negligible changes in the skin temperature, blood pressure and pulse rate occurred. At this point a word might be said about English filter holders. Moyer and Maddock and Roth, McDonald and Sheard have shown that the filtering process of these holders is not adequate to prevent lowering of the cutaneous temperatures of the extremities and

Segal pointed out that lowering of the T waves electrocardiographically was not prevented.

Barker in 1933 presented evidence that the effect of smoking on the peripheral blood vessels was due to the absorbed portion of the tobacco smoke and not to the cigaret paper. Roth, McDonald and Sheard confirmed this observation in 1944.

Toxic Substances in Tobacco Smoke and Effects Produced Under Varying Conditions

Other investigators have shown that the substances contained in tobacco smoke absorbed by the body are pyridine bases, carbon monoxide and nicotine. The pyridine compounds are irritating to the mucous surface but for the most part the amounts absorbed are too small to be of any physiologic interest.

Baumberger studied the effect of carbon monoxide in the tobacco smoke and felt that it was extremely unlikely that the carbon monoxide of tobacco smoke was injurious to any but the most inveterate smokers. Other investigators have found that the average saturation of carbon monoxide in the blood of smokers who inhaled was about 5 per cent in contrast to the 20 per cent saturation necessary to cause disagreeable symptoms among normal persons. However, Barch, Eckman and Molomut called attention to the fact that pilots in whom the hemoglobin of the blood has a carbon monoxide saturation of from 5 to 10 per cent as a result of smoking may aggravate the oxygen want in the tissues when flying at an altitude of 10,000 to 12,000 feet without oxygen.

Ever since nicotine was isolated in 1828, it has been regarded as the most toxic substance in tobacco smoke. Traube first studied the effect of nicotine on the dog's heart and found that there was first a slowing or even a temporary arrest followed by tachycardia with reinforced contractions. In 1938 Thienes and Butt demonstrated greater vascular degeneration in their control animals than in their animals chronically poisoned with nicotine. Because of insufficient control studies they felt that much of the previous experimental and clinical data concerned with vascular degeneration due to chronic nicotine poisoning was of doubtful value.

To determine whether nicotine or tobacco produced vasoconstriction of the coronary arteries, Laubry, Walser and Deglaude measured the coronary flow in isolated rabbit hearts and found that nicotine in small amounts actually increases the coronary flow and that toxic doses were necessary to produce vasoconstriction. Likewise, Mansfeld and Hecht introduced tobacco smoke into the lungs of the heart-lung preparation of

dogs and found only coronary dilatation and increased cardiac output.

Haag demonstrated in animals that rises of blood pressure which were produced by intravenous injections of smoke solutions were proportional to the nicotine content of the solution.

Moyer and Maddock and others have pointed out that the form in which the tobacco is smoked also determines the amount of nicotine available for absorption; the largest amount per unit of weight is obtained from cigars and pipes and the smallest from cigarettes. This result is due to the more nearly complete combustion of the nicotine in the cigarette. Also, the drier the tobacco smoked, the better the combustion and the smaller the nicotine content of the smoke. Baumberger has estimated that approximately 2.52 mg. of nicotine is assimilated by a non-inhaler and 3.33 mg. by an inhaler when one cigarette is smoked. Recently Haag and Larson have carried out studies on a new "low nicotine" tobacco which when it is smoked produced much less pronounced effects on blood pressure and pulse rate than that produced by ordinary cigarette tobacco.

Maddock and Collier and Moyer and Maddock presented evidence that the vasoconstriction produced by smoking cigarettes of standard brands was analogous to that produced by the intravenous injection of as much nicotine as was contained in the cigarette smoked. Furthermore, they as well as Wright and others noted that smoking cigarettes which did not contain nicotine produced no appreciable effects on the cutaneous temperature of the extremities. Johnston in England added support to the nicotine theory in that he assumed that smoking of tobacco is essentially a means of administering nicotine. He felt that smokers showed the same attitude toward tobacco as addicts did to a particular drug. He gave nicotine both hypodermically and intravenously and derived the same response as from the inhalation of tobacco smoke.

Weatherby in 1942 found that vasoconstriction took place after smoking standard brands of cigarettes but when denicotinized cigarettes were smoked the vasoconstriction was abolished almost completely. Restoration of the original nicotine content to such cigarettes restored the original effects. This observation indicates that nicotine is the most important agent which contributed to the circulatory and cutaneous changes.

In contrast, Evans and Stewart found a similar decrease in peripheral blood flow with reduction of the cutaneous temperatures of the extremities as a result of smoking standard brands of cigarettes, denicotinized cigarettes or cigarettes containing no nicotine (cornsilk). They attributed these

changes to the sympathetic stimulation which was brought about by the irritating effect of smoke on the respiratory tract and not to the nicotine content of the cigarettes.

Goetz concluded from his studies that smoking causes a diminution in the peripheral blood flow which brought about in a two fold manner: first by reflex stimulation arising from the irritating effect of smoke on the respiratory tract and lung and later by the pharmacologic action of nicotine absorbed and accumulated during smoking.

McDonald, Sheard and I confirmed the earlier observations of Maddock and Collier and Moyer and Maddock in regard to the peripheral vasoconstriction produced by both smoking of cigarettes and by intravenous injection of a similar amount of nicotine. In addition we compared for the first time the effect of smoking a standard brand of cigarettes and the intravenous injection of a similar amount of nicotine on the electrocardiographic tracings of normal subjects and found them strikingly similar. Even habitual smokers demonstrated physiologic changes to smoking of tobacco.

Summary

From the foregoing evidence a tentative summary of the effect of smoking of tobacco on the cardiovascular system may be made as follows: in some persons smoking of tobacco produces pain somewhat similar to angina pectoris; there is some suggestion that in many such persons smoking produces a rise in blood pressure preceding the onset of the pain; the pain produced by smoking can be distinguished from angina pectoris by its greater violence and a longer duration, by a lack of relation to exercise, its occurrence at rest and by the absence of facial blanching or changes in pulse rate during the attack.

Numerous investigators have demonstrated electrocardiographic changes following smoking of tobacco. These include tachycardia, arrhythmia, increased heart rate, lowering or inversion of the T waves and in one case sino-auricular block. In addition, an associated rise in blood pressure is present. Recent evidence points to increased work of the heart as a possible cause of these changes but the effects of stimulation of the sympathetic nerves or paralysis of the parasympathetic nerves cannot be excluded. In some of the cases in which electrocardiographic changes were found, long cessation of smoking resulted in reversion of the electrocardiogram to a normal pattern. While coronary vasoconstriction has been suggested as a possible cause of angina pectoris, some evidence is available to

show that small amounts of tobacco or nicotine toxic doses are necessary to produce vasoconstriction actually increased the coronary flow and that striction in the isolated hearts of rabbits.

The evidence of most investigators points to vasoconstriction of the peripheral blood vessels as a result of smoking of tobacco. Even habitual smokers who presumably have a tolerance to tobacco showed this effect. Apparently the vasoconstriction of the peripheral blood vessels produced by smoking cigarets is analogous to that produced by a similar amount of nicotine injected intravenously.

Finally, the smoking of tobacco is most likely only a contributory factor in the production of cardiovascular disorders and not an etiologic one. Although considerable evidence at present points to nicotine as the most likely factor in the production of certain functional changes in the cardiovascular system, further proof will be necessary before this possibility can be accepted.

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

COMMUNIQUE

May 30, 1945
Halberstadt,
Germany

To the Editor:

I want to take the time to write my thanks for the effort expended in your endeavor to keep home news going to those of us who are scattered over the world. The Journal and your letters are always welcome.

My hospital is of 300-bed capacity with additional bed space to increase to around a thousand beds. So far, thank God, I have been able to keep my census around 300. We are doing all types of work on Russian DP's, and it pushes us pretty much to keep from getting snowed under. Have two other doctors (Lt. Jim Webb, from Russellville, is one), one dentist, one MAC officer and six nurses. Also two German nurses who speak English and who have proven to be invaluable not only as nurses but as interpreters. My enlisted personnel totals 52 men and that's the crop. Try running a 300-bed hospital with five to thirty admissions daily and the only answer is lots of work.

We are proud of our plant, however, as we took over a large Luftwaffe Field (about like Randolph Field), and have all the luxuries of home. It's quite a layout but the work is hard.

I'm off 22 pounds in weight but feel fine. The little Budweiser belly that I got while loafing in Texas has long since gone. All of my officers and men have worked even harder but stay on the go. Here's one for the boys. We do not hold sick call among the outfit and haven't had a name on the sick book since we started to work. Even so, I have had men working for two days at a time without sleep, with sprained ankles, sinusitis, diarrhea, etc., and not one has asked for relief. They treat each other much like you would ask your fishing buddy to wipe a gnat out of your eye and let it go at that.

Even with all the work the boys find time to do a thousand things from fixing "busted" Jerry vehicles and motorcycles to making music at night. We are working about 100 Polish girls but my signs say: "Be Wise—Don't Fraternize." Well, who can watch all of 52 G. I. Joes and 100 Polish girls, especially after dark?

One of the clerks manages a little hospital paper on the side. A couple of issues are inclosed. As you will notice, I supplied your letter of "Ben's" to the last edition.

Give my best regards to all of my friends at home.

Sincerely,
J. D. Hayes,
Captain, M. C.,
78th Field Hosp., Unit "C"

COMMUNIQUE

July 6, 1945

To the Editor:

My new address is . . . to you. Your letter came today and it's nice to hear from home.

The boys in this theater are getting a "not so hot deal." I'm now working at . . . General Hospital on detached service and many of them have been out here 44 months and can't even get a leave. Present policy is that you are eligible for a leave after 36 months, but getting one is a different thing. Of course, with my 21 months, I am a beginner.

This is a wonderful orthopedic spot. Had 750 such cases when I got here and I've seen everything in fracture line. They are building us a new hospital here in a swell location.

So far Milton John is the only Arkansas doctor I've come across but see plenty of casualties from Arkansas.

Ed Dunaway,
Major, M. C.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

WHENEVER an individual handicapped by arrested tuberculosis seeks employment, the private physician finds himself called upon to step into the role of referee. Only he can make the decision as to what will serve the best interests of the patient as well as protect the community and satisfy the requirements of industry. The medical adviser's success in discharging this key responsibility will depend largely upon close cooperation with all others concerned.

THE PRIVATE PRACTITIONER AND THE INDUSTRIAL PHYSICIAN

The transition period for the tuberculous patient from a status of carrying on light activity to becoming a self-sustaining wage earner is a period of trial and error depending upon developing immunity and the results of two warring processes. Opposing one another are the tendency of the tuberculous infection to progress and the tendency of healing to occur. Unless it is appreciated that this period is dynamic interval, the need for repeated checkups may be overlooked.

In the minds of both the private practitioner and the industrial physician the welfare of the patient must be the primary issue, taking second place to no other consideration. Too often the patient feels that the primary objective is to earn a living. Occasionally he will not realize that check-ups are worth his time and his money, and, unfortunately, but quite infrequently, the family physician may feel similarly. More often, the patient is interested in: first, getting well; secondly, making a living; and thirdly, becoming a wage earner in a way that recovers his self-confidence, his respect for himself, and his position as a working, economic, and social constituent of his community. Of great importance is the indoctrination of the individual that check-ups are not to be feared. The patient must assume an aggressive and participating attitude in the fight against his disease.

The objective of the private practitioner is to fulfill the duties of his profession in getting the patient well. The physician has another interest, and that is to demonstrate the value of the private practice of medicine. This also has a financial aspect to the physician. The fight against tuberculosis cannot be won without the participation of the private practitioner of medicine.

The industrial physician on his part has at least three objectives: (1) The protection of all employees against open cases of tuberculosis; (2) the protection of the so-called arrested tuberculous patient from his own over-activity or poor judgment; and (3) the protection of the industry itself from financial loss in attempting to convert the tuberculous patient into a wage earner.

All are well aware of the validity of the first two points. The last point becomes significant when one hears that by some courts "aggravation of tuberculosis" is held compensable.

With due respect to the interests of the three parties mentioned above, what is to be accepted as evidence that a tuberculous patient is employable? (1) First and foremost is a series of X-rays demonstrating that the lesion is static or regressing under the conditions of living undergone by the patient during that period of observation. (2) It is essential that this period of observation covered by the serial X-rays include eight hours at least of daily activity, even though of light or moderate degree. (3) There must be an adequate series of negative sputum examinations. The author personally prefers a minimum of three consecutive negative sputum examinations, or, preferably, gastric aspirations. (4) An obvious increase in the feeling of well-being of the patient, such as complete absence of symptoms and a satisfactory weight history, is important. (5) A blood sedimentation rate has been found to be worth while, and hence at least one normal blood sedimentation rate should be insisted upon. (6) A daily record of the temperature at 4:00 p. m. and 8:00 p. m. for an immediate period of ten days should be established. (7) There must be developed in the patient a proper attitude toward his own condition and a

proper understanding of just what this trial-and-error period means in the way of mutual cooperation. By **proper**, "humble" or one of forfeiture of any rights is not meant. What is meant is good insight and a paramount will to get well. (8) Finally, there must be an available job which the applicant can do and may do without causing real or alleged damage to himself, or creating a menace to his fellow employee.

In order to achieve this, there must be a system of restricted placement, and, in setting up such a system the medical status of the individual must be kept confidential so that the employee will feel reassured, and thus be helped to establish self-respect and regain confidence in himself.

No classification system can be followed blindly. Individual evaluation of each case is necessary and any preformulated procedure of restricted placement is nothing more than an over-all guide. Such a restricted placement procedure must be revised constantly and kept up to date, and the health status of the individual must also be re-evaluated at regular intervals.

In connection with this re-evaluation, it may be worth while to discuss the author's manner of handling any one particular case. Whenever the routine pre-employment X-ray brings to light a lesion about which there is any question of activity, the applicant is refused employment until a thorough survey by his family physician or qualified agency is made available. Routinely, the author asks for: (1) previous chest X-ray record, if any; (2) at least three negative sputum examinations and, where warranted, at least one negative gastric aspiration; (3) a ten-day, twice a day, temperature record; (4) the sedimentation rate; (5) written permission of the physician caring for the case that this person may work; (6) following this evaluation, another discussion with the patient exploring and improving his mental attitude; and, lastly, a re-classification, taking into consideration other restricting disabilities the employee may have.

Depending upon the indications of this re-evaluation, the employee is reviewed in one, two or three months, and, according to the indications, these re-evaluations are either increased or decreased in time frequency throughout the year or years. This procedure applies to the white-collar men as well as the group that wears overalls.

Should a tuberculous patient with seniority displace, or "bump off," as they call it, another employee with less seniority on a job where there is a possible hazard for a tuberculous patient, a

difficult problem might arise. Such a situation will demand that, above all other considerations, the health of the convalescent or "arrested" tuberculous patient be in no way endangered by compromise. If one realizes and practices the principles of health preservation with absolutely no compromise, this "bumping-off" problem will certainly be settled in a medically satisfactory manner.

An important phase of this problem will have been omitted if attention is not called to the need of financial aid to replace lost income for those individuals who must cease working for a period of time. Group health insurance is one such source of aid. Community welfare agencies and possibly federal agencies also may be able to help make up for this lost income.

Cooperative Efforts of the Industrial Physician and the Private Practitioner in Re-employment of Arrested Tuberculosis Patients, J. F. Johnson, M.D., *Industrial Medicine*, January, 1945.

COMMUNIQUE

202nd General Hospital
Paris, France
June 29, 1945

To the Editor:

Have neglected you a little lately but will try to bring you up-to-date on a few fellows you know. Frank (Mickey) McGuire, of Augusta, and Sam Phillips, of Little Rock, are across town at the 191st General Hospital. I understand they will be transferred to this hospital in a day or two. Needless to say, I'll be glad to have a fellow Razorback in our midst. Wallace and Arthur Fowler were in town the other day but I didn't get to see them and don't know where they are now. Tell Bill Stover I most certainly received his architectural symposium and plan to incorporate one or two models into my post-war building program. I will probably pay Milton John a visit before long. When I see him I'll let you know what he has to add to the gossip. Again, give Toots Leverett my regards and tell him to hurry up and answer my last letter.

Fraternally,

Thos S. Van Duyn,
Capt., M. C.

"WAR OR NO WAR—

Depression or no depression, in good times and in bad," Mead Johnson & Company are keeping the faith with the medical profession. Mead products are not advertised to the public. If you approve this policy, please specify **Mead's**.

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EDITORIAL

SALES OF SURPLUS GOVERNMENT PROPERTY TO HOSPITALS

The Department of Commerce, Office of Surplus Property, has announced that tax-exempt non-profit educational institutions and hospitals are now enabled to negotiate purchases of government surplus property, if the Regional Director is satisfied that the property is being acquired to fill a legitimate need and not for resale, and that the price offered represents the fair value of the property. Contracts for the sale of surplus property to these institutions will contain the following conditions:

1. The purchaser represents and warrants that it intends to use the property purchased for legitimate institutional purposes and is not buying the property for resale.

2. The purchaser represents and warrants that it is a non-profit educational institution or hospital which is exempted from the payment of Federal income taxes under Section 101 (6) of the Internal Revenue Code.

Arkansas institutions desiring further information on surplus property and their acquisition of

the same should write: Department of Commerce, Office of Surplus Property, P. O. Box 1407, Fort Worth 1, Texas.

RANDOM THOUGHTS OF THE SECRETARY

June 23rd. Reading of the price tag which was attached to Porter Rodgers' Tennessee walking horse recently and today seeing Haley's de luxe highway trailer for transportation of his animals to and from Hobby Hill, we realize that some of our colleagues have entered into this form of stock raising game where the only shoe strings are on us envious pedestrians.

June 26th. Meeting with the state cancer commission in organization session this afternoon, returning home just in time to become a traumatic surgeon for the youngster who has pushed both hands through a glass door; lacerations, loss of tissue and the like accompanying this incident, requiring no little surgical technic on our part, an unaccustomed professional effort.

July 1st. Meeting with the Executive Committee of the Arkansas Field Army today for discussion of the continued activities of that enthusiastic organization and thence to the station by courtesy of Mrs. White's husband, only to find that the train is not running today. So by bus to Russellville where we board the train and wait a sufficient length of time for the bus to complete the trip to Fort Smith before the train departs Russellville, causing us to wonder if our travel experience is so extensive after all.

July 6th. Comes visiting Jim Branch with tales of the mighty spearheading 6th Armored Division, Fort Smith's adopted organization, but the greatest tale he tells is of negotiations with a German dressmaker to make a dress for Mrs. Branch out of parachute cloth and Jim's estimation of measurements involved by study of twelve native maidens.

July 7th. This morning breakfasting with Euke Smith en route to his beloved Texas and the pleasures of military service there from a short leave in Hot Springs and how we would like to have had Wolferman and Parmley along for this confab.

July 11th. In session with the cancer commission making arrangements for the treatment of medically indigent cancer patients and thence homeward in the late afternoon finding that Russellville has opened a new eating place, the Eureka, a needed project along the route Fort Smith to Little Rock with every promise of offering good food in pleasant surroundings.

July 15th. For the first time since November we visit Fayetteville in the early morning, surprised to see a city bus line in operation and enjoying the renovated Washington Hotel which has, praise be, continued the same good food.

July 17th. Waldo Regnier, who has had the chance to see a lot of the Mediterranean while on flying boat rescue duty, comes by en route to a new assignment and we are able to bring him up to date on discharges of medical officers, a recurrent rumor in Casablanca.

July 18th. Dodging the heat for a few hours this evening at Burns Gables where we meet the Coxes of Stuttgart, enthusiastic supporters of Drennen, and willing to corroborate his stories of hard work in the practice of medicine.

PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro July 5th with W. F. Shepherd, Jonesboro, presenting "Use of Electrocardiography in Clinical Practice."

J. H. McCurry, Secretary.

The annual Washington-Benton County Medical Society picnic was held at Springdale July 12th with scientific addresses presented by John T. Reynolds, Chicago, and F. T. H'Doubler, Springfield, Missouri.

PERSONALS AND NEWS ITEMS

Capt. C. R. Williams, Morrilton, has returned from the European theater for leave and has been reassigned to Army Air Field, Sioux Falls, South Dakota.

Edwin L. Dunaway, Conway, now stationed overseas with a station hospital, has been promoted to major.

Capt. Leo. E. Peters, Little Rock, is now stationed overseas.

Lt. Col. Daniel H. Autry, Little Rock, is now stationed overseas with an evacuation hospital.

Maj. John W. Smith, Little Rock, has recently completed a course in radiology at Mitchell Field Hospital, Mitchell, Field, New York.

Lt. Col. James W. Branch, Hope, has been awarded the Silver Star for gallantry under fire in the campaign of the 6th Armored Division.

Lt. Col. A. M. Washburn, Little Rock, has returned on leave from the European theater.

Col. Henry G. Hollenberg, Little Rock, is now assigned as Surgical Consultant, Eighth Service Command, Dallas.

Maj. Carl L. Wilson, Fort Smith, is now overseas with a general hospital.

J. B. Holder, Monticello, now stationed overseas with a general hospital, has been promoted to major.

D. A. Rhinehart, Little Rock, has been elected president of the American Registry of X-ray Technicians.

C. A. Archer, Jr., recently addressed the Conway Rotary Club on "Psychoneurosis."

Lt. Jos. B. Wharton, Jr., El Dorado, is now stationed overseas.

"Ruptured Peptic Ulcer Among U. S. Troops in Panama" by Major Wm. B. Harrell, Little Rock, and Capt. R. O. Wilson, appeared in The Military Surgeon, April, 1945.

Capt. Merle Crow, Warren, who has previously received the Silver Star and the Bronze Star, has been awarded the Purple Heart for wounds sustained in action in the Philippines.

C. W. Rasco, Jr., has been released from military service and has returned to practice at DeWitt.

Maj. Warren S. Riley, El Dorado, is now assigned to Station Hospital, Camp Chaffee, Arkansas.

R. C. Dickinson, Horatio, attended the recent pediatric seminar at Saluda, North Carolina.

The Arkansas State Cancer Commission has elected Governor Ben Laney, Chairman, and Carl A. Rosenbaum, Little Rock, Secretary.

Ralph E. Crigler, Fort Smith, recently visited the Mayo Clinic.

W. R. Brooksher, Fort Smith, has been appointed a member of the Council on Medical Service and Public Relations of the American Medical Association.

G. C. DeBolt has been elected surgeon of the Rogers post of the American Legion.

Dr. and Mrs. W. F. Adams, Fort Smith, spent a recent vacation on Lake Hamilton.

Capt. James O. Pierce, Marked Tree, is now stationed at the AAF Convalescent Hospital, Fort Logan, Colorado.

James F. Lewis, Fayetteville, now on duty with Medical Corps, United States Navy, has passed the examinations of the American Board of Internal Medicine.

A. B. Dickey, State Sanatorium, has been elected president of the Booneville Rotary Club.

Martin M. Even, Fort Smith, has accepted a residency at the Milwaukee County Hospital, Milwaukee.

E. J. Easley has been elected secretary of the Pulaski County Medical Society.

Capt. C. A. Churchill, Batesville, is now stationed at the Alliance Army Air Base, Alliance, Nebraska.

Maj. W. A. Regnier, formerly of Crossett, recently visited his home on leave from service in the Mediterranean theater.

Dr. and Mrs. H. C. Dorsey, Fort Smith, visited in Texas on a July vacation.

OBITUARY

AMOS ELMER ROBINSON, age 54, Leachville, died July 5th. Born in Melbourne, he attended high school at Paragould and graduated from the University of Tennessee College of Medicine in 1915. Following an internship at Knoxville, he located at Leachville and continued in active practice there until his last illness with the exception of a period of 18 months in which he served as Captain, Medical Corps, during World War I. Surviving relatives are his wife and a daughter.

LEE O. GREENE, age 65, Pea Ridge, died July 4th. Born in Washington County, he graduated from the Saint Louis College of Physicians and Surgeons in 1902 and first practiced at Lowell with his father, later moving to Pea Ridge where he has been in active practice for more than 40 years. He was an active member and past-president of the Benton County Medical Society and a member of the Masonic Lodge and of the Modern Woodmen. Surviving relatives are his wife and a son.

WILLIAM WESLEY WARD, age 72, Alexander, died June 18th. A graduate of the University of Arkansas School of Medicine in 1902, he had practiced medicine in Arkansas for 52 years. Four generations of his family had practiced medicine in Virginia and Alabama. He had held various offices in the Saline County Medical Society, was a member of the Southern Medical Association and a fellow of the Amer-

ican Medical Association. He served in the army medical corps during World War I. He was a member of the Masonic bodies and of the Shrine. Surviving relatives are his wife and two daughters.

JAMES CLAUDE CUNNINGHAM, age 63, died at his home in Little Rock June 18th after a long illness which forced his retirement from practice in 1932. Born at Charleston, Arkansas, October 7, 1881, he graduated from Maryland Medical College in 1903 and had lived in Little Rock for 41 years. He was a member of the Pulaski County Medical Society and of the Arkansas Medical Society and a fellow of the American Medical Association. He was emritus professor of obstetrics and gynecology at the University of Arkansas School of Medicine. Surviving relatives are two sisters and a brother.

H. D. ROBINSON, age 49, died suddenly at his home in Manila February 25th. Born March 7, 1896, in Rankin County, Mississippi, he graduated from the University of Tennessee College of Medicine in 1927 and had practiced at Manila for several years. During World War I he served in the Marine Corps, and was an active member of the American Legion. He was a member of the Baptist church. Surviving are his wife, one son and one daughter.

DOCTORS OFFER NEW PLAN FOR MEDICAL CARE TO ALL PEOPLE

14 Objectives Include Improved Housing, Nutrition and Sanitation, Which Are Fundamental to Good Health

The physicians of the United States, through the American Medical Association, have developed a constructive 14-point program for the extension of improved health and medical care to all people.

Their platform, adopted by the Council on Medical Service and Public Relations and the Board of Trustees of the American Medical Association, is published for the first time in the A. M. A. Journal of July 21.

The program follows:

Preamble

The physicians of the United States are interested in extending to all people in all communities the best possible medical care. The Constitution of the United States, the Bill of Rights and

the "American Way of Life" are diametrically opposed to regimentation or any form of totalitarianism. According to available evidence in surveys, most of the American people are not interested in testing in the United States experiments in medical care which have already failed in regimented countries.

The physicians of the United States, through the American Medical Association, have stressed repeatedly the necessity for extending to all corners of this great country the availability of aids for diagnosis and treatment, so that dependency will be minimized and independence will be stimulated. American private enterprise has won and is winning the greatest war in the world's history. Private enterprise and initiative manifested through research may conquer cancer, arthritis and other as yet unconquered scourges of humankind. Science, as history well demonstrates, prospers best when free and unshackled.

Program

The physicians represented by the American Medical Association propose the following constructive program for the extension of improved health and medical care to all the people:

1. Sustained production leading to better living conditions with improved housing, nutrition and sanitation which are fundamental to good health; we support progressive action toward achieving these objectives.
2. An extended program of disease prevention with the development or extension of organizations for public health service so that every part of our country will have such service, as rapidly as adequate personnel can be trained.
3. Increased hospitalization insurance on a voluntary basis.
4. The development in or extension to all localities of voluntary sickness insurance plans and provision for the extension of these plans to the needy under the principles already established by the American Medical Association.
5. The provision of hospitalization and medical care to the indigent by local authorities under voluntary hospital and sickness insurance plans.
6. A survey of each state by qualified individuals and agencies to establish the need for additional medical care.
7. Federal aid to states where definite need is demonstrated, to be administered by the proper local agencies of the states involved with the help and advice of the medical profession.
8. Extension of information on these plans to all the people with recognition that such voluntary programs need not involve increased taxation.
9. A continuous survey of all voluntary plans for hospitalization and illness to determine their adequacy in meeting needs and maintaining continuous improvement in quality of medical service.
10. Discharge of physicians from the armed services as rapidly as is consistent with the war effort in order to facilitate redistribution and relocation of physicians in areas needing physicians.
11. Increased availability of medical education to young men and women to provide a greater number of physicians for rural areas.
12. Postponement of consideration of revolutionary changes while 60,000 medical men are in the service voluntarily and while 12,000,000 men and women are in uniform to preserve the American democratic system of government.
13. Adoption of federal legislation to provide for adjustments in draft regulation which will permit students to prepare for and continue the study of medicine.
14. Study of post-war medical personnel requirements with special reference to the needs of the veterans' hospitals, the regular army, navy and United States Public Health Service.

Commencing on the program, the same issue of The Journal said editorially:

"By this program the American Medical Association supports improvement in nutrition, housing and living conditions that are fundamental to good health. Again it places the American Medical Association behind the extension of qualified public health and preventive medical service. The program recognizes that plans for insurance against the costs of hospitalization on a voluntary basis have now been sufficiently developed to warrant support, although some controversial questions have not yet been satisfactorily settled. The care of the indigent, for which there are no suitable provisions under existing or proposed national or other compulsory sickness insurance plans, may by new technics be incorporated into voluntary sickness insurance plans.

"Fundamental to a scientific plan for meeting needs for medical care is the scientific survey which determines the existence and scope of such needs. This fact is recognized in the proposals that surveys be made to determine these needs and that federal aid be given where needs are demonstrated, with the understanding that administration and control will be under local auspices.

"The final measures in this program relate to problems associated with the war and the situations created by military service. More than 60,000 physicians have been involved in military and other governmental services, while less than 90,000 physicians have tried to meet the needs of the civilian population. On these physicians has rested a great burden. Every one now agrees that discharge of physicians from the armed services as rapidly as possible is necessary for the maintenance of medical care. . . .

"The needs of medical education have been told repeatedly and are again emphasized in this constructive program. Unless plans provide for a sufficient number of young men and women in the premedical curriculum, the nation will face a desperate shortage of physicians in the coming years. . . ."

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July 11, 1945

To the Editor:

My correct address is as above.

Am pretty busy now with a good-sized, and steadily increasing, group of naval officers in the school and many dependents to take care of as well as routine work. I'm the (one and only) medical officer so this job is pretty much general practice.

Thanks for the Journal received today.

Sincerely,

James F. Lewis,
Lt., M. C. (USNR)

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COMMUNIQUE

June 29, 1945

To the Editor:

My fears that I might fight all World War II at Camp Robinson have come to an end at long last. Am assigned to an evacuation hospital at . . . Am with a fine group of officers and will get some professional work as chief of medical service. The unit is located in a pretty . . . forest overlooking the . . . I've met plenty of bugs and insects and hope to see deer and other reported game. I've enjoyed the Journals and communiques in the past and hope to get them here.

Regards,
Daniel H. Autry,
Lt. Col., M. C.

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The staff of the hospital at Crossett held open house June 18 from 3:00 to 7:30 p. m., with the Southeast Medical Society and its Auxiliary as guests. After seeing the hospital with the new equipment, all met at the Rose Inn for dinner which was served in the dining room. The doctors remained in the dining room for their meet-

ing and the Auxiliary was invited to the home of Mrs. Davis for a business session. What method to use and what type of program to present at the monthly meetings so that we might keep up the attendance during these busy times was the main discussion. Following this, Mrs. Davis, Mrs. Crawford and Mrs. Smith, all of Crossett, entertained with an informal party. We are very happy to receive these ladies in the Auxiliary as members.

**Fred Hames,
M. D.**

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LITTLE ROCK, ARKANSAS, SEPTEMBER, 1945

No. 4

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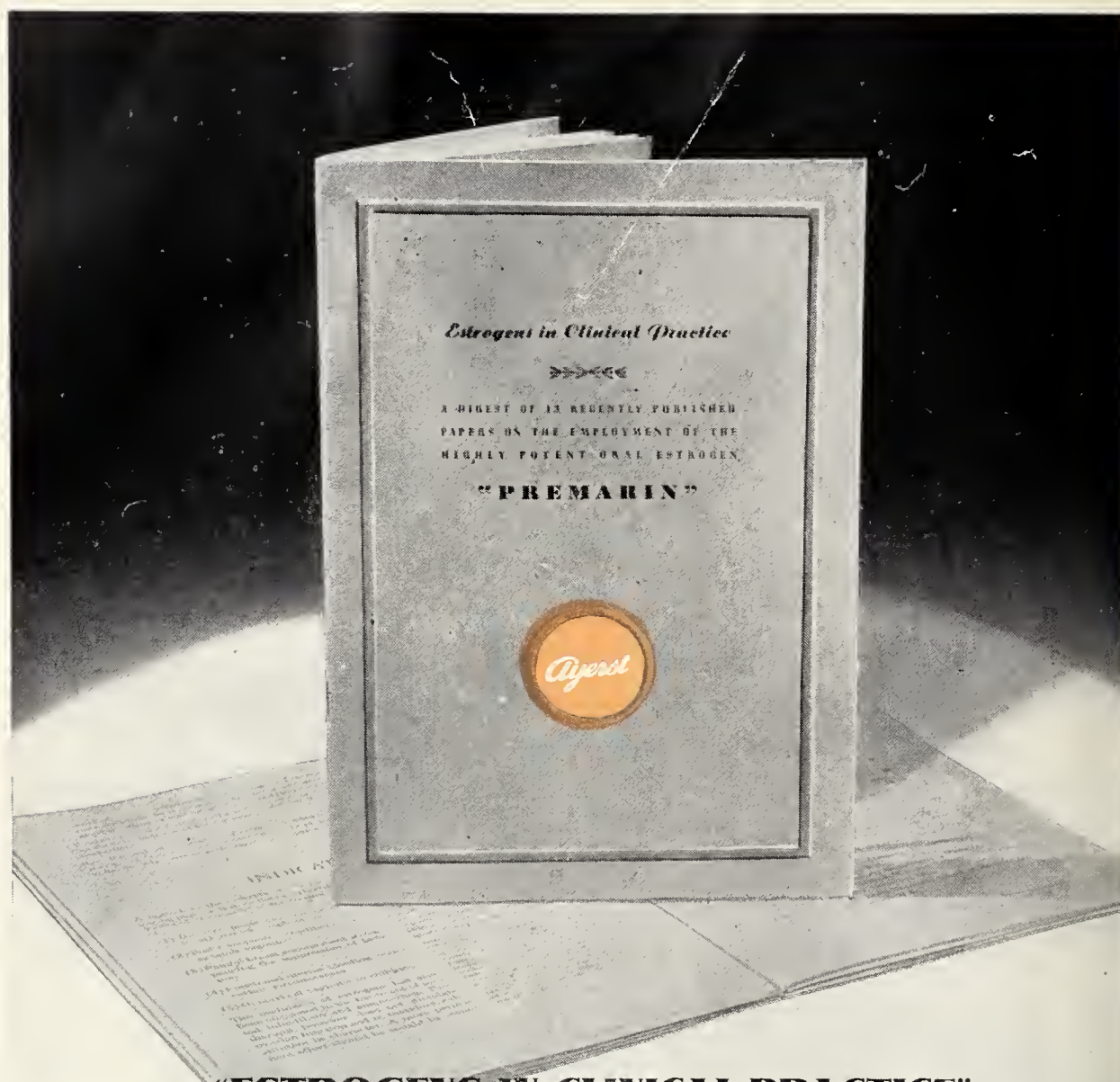
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LITTLE ROCK, ARKANSAS, SEPTEMBER, 1945

No. 4

AMERICAN MEDICINE TOMORROW

MAC F. CAHAL, Executive Secretary
American College of Radiology
Chicago

In his excellent book comparing the theories of Oswald Spengler and Raymond Pearl, "Today and Destiny," Edwin F. Dakin expresses a truism that is of particular significance for doctors in these dynamic times: "Any concept—economic, political or cultural—which leaves its possessor wholly unprepared for tomorrow is of doubtful validity. Conversely, men who are not surprised when the future comes, lie very close to the truth."

Dr. Lowell S. Goin, president of the American College of Radiology, was pleading for a true concept of the future when, in a recent letter to Members and Fellows of the College, he warned of impending social changes that would almost certainly result in new methods of distribution for medical services. He urged radiologists to actively encourage voluntary prepayment plans for medical care, sponsored by medical societies, as the soundest and most desirable method among the many that have been proposed. At the same time, he warned that some form of socialized medicine, embodying compulsory health insurance, is not an inconceivable eventuality.

Dr. Goin's concern would seem to be justified by what most observers have recognized as an increasing pressure of public opinion. The attitude of the public was succinctly expressed by Fortune Magazine in its December issue: "The state of medicine in the United States is a social problem because the country's conscience has made it so . . . people who cannot find or pay for proper medical care are resentful."

I have been sharply criticized in some quarters for a statement made in my annual report

to the College two years ago in which I referred to the powerful social forces at work throughout the world and their manifestation in agitation for socialized medicine in this country. I remarked that there was a growing conviction among medical men that a head-on opposition to this unmistakable trend would be as unwise as it would be futile. Subsequent events have proved, I believe, that the demands for improvements in the distribution of medical services must be met, either by voluntary plans for prepayment or, if not, then by compulsory health insurance. It seems unnecessary to recite the extensive evidence that this is so. A half dozen public opinion surveys have revealed a definite public demand for insurance against medical costs.

Brig. Gen. Fred W. Rankin, in his presidential address before the American Medical Association House of Delegates last year, called upon the medical profession to recognize the gathering momentum of trends that are "directed toward some form of national health service as an integral function of the state." He made a plea that they be regarded not in the light of apostasy, but rather in the light of realism.

Dr. Allan Gregg, whose words carry considerable weight in the medical world, has uttered a similar warning. "The danger for medicine in America lies in failure to acknowledge and to study the sociologic aspects of medicine—the social matrix. We are loath to see that research and teaching, as well as the practice of medicine, will change when change comes in the prevalent interpretations of the role of government and the structure of our society," he says.

It would appear, therefore, that if we are not to be unprepared for tomorrow, we should give consideration in our deliberations to the likely effects of all the various proposals for changes in the economics of medicine. It is a poor general who fails to consider the probable results of every possible contingency that may alter the existing situation.

In our efforts to peer into the future of medical practice in the United States I think we should keep one very important point clearly in

Note: The above address was presented at the annual meeting of the Board of Chancellors of the American College of Radiology in Chicago, February 8, 1945.

mind. It is this: Every system of compulsory health insurance in all the countries of the world has been built upon existing agencies for the distribution of medical care. On the basis of history, therefore, we can assume that, if a system of compulsory health insurance is adopted by Federal or State governments in this country, existing plans for the application of the insurance principle to payment for medical care would be utilized by the state. The obvious corollary is that medical practitioners would carry on under the state plan much as they did under the voluntary plans which preceded it. This has been almost the universal experience in European systems.

Writing on the "Origins of Health Insurance," in their excellent book on this subject Simons and Sinai show that compulsory health insurance is built out of three existing institutions: insurance or prepayment plans, the state, and the medical professions. "The relations, reactions, and relative strength of these determine much of the character and results of compulsory health insurance throughout the world leads them to conclude that pre-existent voluntary prepayment plans have dominated the state systems which followed."

Douglas and Jean Orr, in their book on the British experience with health insurance, point out that the form which the national health system of England finally took was determined by the "friendly societies" which had existed for many years as voluntary plans for prepayment to meet the costs of sickness.

Sir William Beveridge, in his epoch-making report on social insurance in England, observes the part which the voluntary plans have played in setting the pattern of the government system. He contemplates, though with frank displeasure, that they will continue to be utilized as distributing agencies in the expanded system which will undoubtedly be adopted in Great Britain.

He implies, incidentally, as have others before him, that voluntary sickness insurance promotes, rather than deters, the adoption of compulsory systems. In 1909 David Lloyd George pointed to the "friendly societies," which were comparable to our present prepayment plans, as proof of the feasibility and desirability of compulsory sickness insurance. The National Health Insurance Act came three years later. It is significant, perhaps, that efforts to enact compulsory insurance laws in our own country are today mostly concentrated in the two states with the oldest

and largest voluntary medical service plans, California and Michigan.

We all hope that voluntary prepayment plans, sponsored either by medical societies or commercial insurance carriers, will meet the palpable demand of the public for relief from the unpredictable financial burdens of illness. If they do not, the lessons of history teach us that organized medicine has yet another compelling reason for extending these plans as rapidly and as widely as possible. Once firmly established, they would set the pattern and determine the methods to be followed in the event a compulsory system is adopted.

Now, in the light of these considerations, the group hospitalization movement, concerning which organized medicine has been exceedingly circumspect, acquires a new importance that tends to justify medicine's diffidence. Are the Blue Cross plans to duplicate the history of England's friendly societies? Two facts lend credence to an assumption that this is altogether possible.

First, a determined effort is being made by directors of Blue Cross plans to extend their benefits to include complete surgical or medical care. Second, Blue Cross plans would almost certainly be preserved and integrated in a compulsory sickness insurance plan.

The first of these statements will be promptly denied by Blue Cross leaders. But the facts speak for themselves. In Delaware, the Blue Cross plan has already been expanded to include cash benefits for surgical care. It is administered by a Board of Trustees on which there are two hospital representatives for every doctor. Also in West Virginia and North Carolina hospital service plans have assumed full control of medical care plans.

The American Hospital Association, at its recent annual meeting, considered recommendations from several speakers for "extending prepaid hospital plans to cover out-patient care." At the same meeting the Hospital Service Plan Commission approved a proposed model enabling act for comprehensive health service plans which would require, among other things, that any plan incorporated under the act be controlled by a board composed of one-third hospital trustees, one-third doctors, and one-third lay representatives of the public. In the course of the discussions, Mr. Louis H. Pink, president of Associated Hospital Service of New York City, urged expansion of Blue Cross to

include the costs of medical care without delay.

In Philadelphia, where the medical society several years ago fought a bitter and unsuccessful battle to exclude radiology and pathology from the hospital service plan, a proposal has very recently been submitted to add complete medical care to Blue Cross benefits. The proponents candidly recommend repeal of the present Pennsylvania enabling act, which requires that a majority of the directors of medical service corporations be doctors of medicine.

Now I desire that I not be misunderstood. Cooperation between hospital service plans and medical or surgical service plans is essential. It is rather generally agreed among hospital leaders that Blue Cross enrollment has about reached its maximum unless contracts for hospital service can be coupled with insurance against medical costs. There is no doubt that the United States Public Health Service will emphasize this fact in the report of a study it is currently making of the movement. Furthermore, it is both logical and economical to delegate responsibility for sale and routine administration of the medical service plan to existing Blue Cross plans which have several years of experience and have acquired trained personnel.

But, medical societies which turn over complete control of prepaid medical care to Blue Cross plans that are controlled by hospitals are traveling a dangerous road. They are violating one of the basic principles of organized medicine if they fail to establish a separate corporation to control the medical plan, with a board of directors of which at least a majority are doctors.

Ten years ago the American Medical Association laid down the postulate that: "All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control." This principle has lost none of its validity.

If anyone is inclined to minimize the importance of this principle, he has but to follow the course of the controversy that has persisted between hospital service plans and the organized medical profession over the inclusion of certain medical services as a part of hospital care. For ten long years county, state, and national medical organizations have insistently demanded that radiology and pathology be excluded from Blue Cross benefits. Everyone knows that the reaction of hospitals to these unequivocal demands

has been one of polite indifference. What makes anyone think they would follow the dictates of the medical profession concerning other branches of medicine, once they were in control of medical service plans?

Constantly during recent years the American College of Radiology has warned that medicine would sacrifice a basic principle if it yielded to the adamant demand of hospitals that they be permitted to include radiology and pathology in Blue Cross benefits as a part of hospital care. Too often our admonition that this would open the door to further encroachments by which hospitals would assume added prerogatives in the delivery of medical services, has fallen on unheeding ears. Now, as one medical editor has sardonically remarked, "The beans are on the carpet, spread out for all to see."

The second fact stated above, that Blue Cross plans would be integrated in a system of compulsory insurance, is likewise more than a mere assumption. Witness the curious tergiversation that has taken place in Rhode Island. Not long ago the governor of Rhode Island proposed a law of compulsory hospitalization insurance in his state. Promptly Blue Cross executives all over the country assailed the proposal as "un-American" and "regimentation." But, when the governor publicly announced that he contemplated the use of Blue Cross as an agency under the system, opposition quietly died.

The Wagner-Murray-Dingell bill, as you know, authorizes the Surgeon General to "negotiate agreements . . . with private agencies or institutions . . . to utilize their services and facilities. . . ." In response to a question from hospital spokesmen, Surgeon General Parran has already expressed the view that this would include Blue Cross plans.

I would point out that this provision in the bill would also permit medical service plans operated by medical societies to enter into contracts for rendering services to beneficiaries. Significant also is the provision in the Wagner bill which permits the practitioners in each area to elect the method by which payment shall be made for services.

Does this not offer sufficient reason for medical societies to set up their own plans for prepaid medical care? Surely the leaders of medicine can see the wisdom of establishing proper precedents now.

I have attempted here to present a point of view, which I think carries profound consideration for American medicine. I have not said

that voluntary plans of sickness insurance will be superseded by a compulsory system. I honestly do not believe they will be. But, as my friend, A. M. Simons, has wisely said, social experiments invariably establish patterns of precedent that are seldom completely reversed. In these dynamic times we have extra reason to be vigilant.

The future faces American medicine. Precedents are being established that will have permanent influence on the system of medical practice in this country for many years to come. From the leaders of thought in organized medicine the highest order of statesmanship and sound judgment is needed.

COMMUNIQUE

July 22, 1945.

To the Editor:

I want to tell you The Journal for July arrived today, which I thought was excellent service. Was very happy to read it and was especially interested in the report on the proposed national medical legislation. Certainly none of the medicos I've talked to want any such system on return to the States.

The monsoon is not as bad as I would have thought. I'm pretty well settled in my new job and I like it very much.

I am enclosing a couple of short classics that I hope you will enjoy, if you haven't seen them before. It is sort of a reverse lend-lease to try to repay a little of the pleasure and entertainment of your Random Thots and Communiques.

Kindest personal regards,

Dan Autry, Lt. Col., M. C.

COMMUNIQUE

July 15, 1945.

To the Editor:

It is requested that you send me The Journal of the Arkansas Medical Society to the address below.

After forty-five days as a patient in a hospital, I have a change of duty.

I am sure your last letters and one or two copies of The Journal have been delayed but will eventually reach me.

Regards to all the boys back home.

Yours,

Raymond C. Cook,
Comdr., MC., USNR.

THE MATERNAL AND CHILD WELFARE ACT OF 1945

An Analysis Prepared by the Bureau of Legal Medicine and Legislation, American Medical Association

Senator Pepper, Florida, for himself and nine other members of the Senate Committee on Education and Labor, has introduced a bill, S. 1318, to provide for the general welfare by enabling the several states to make more adequate provision for the health and welfare of mothers and children and for services to crippled children and for other purposes. Joining Senator Pepper in sponsoring this legislation were Senator Walsh, Massachusetts; Senator Thomas, Utah; Senator Hill, Alabama; Senator Chavez, New Mexico; Senator Tunnell, Delaware; Senator Guffey, Pennsylvania; Senator LaFollette, Wisconsin; Senator Aiken, Vermont, and Senator Morse, Oregon. The bill was referred to the Senate Committee on Education and Labor, of which Senator Murray, Montana, is chairman.

An appropriation of \$100,000,000 will be authorized for the fiscal year ending June 30, 1946; \$50,000,000 earmarked for maternal and child health services, \$25,000,000 for services for crippled children, \$20,000,000 for child welfare services and \$5,000,000 for expenses necessary to enable the Children's Bureau to administer the provisions of the bill and to develop and promote effective measures for carrying out its purposes, including "studies, demonstrations, investigations and research, the training of personnel for federal, state and local service, and the payment of salaries and expenses of personnel detailed at the request of state agencies to cooperate with and assist such agencies" in carrying out the objectives of the legislation. Thereafter such sums will be made available as the Congress shall decide.

The bill, which Senator Pepper has described as "a modest beginning," has five titles:

Title I. Maternal and Child Health Services

The stated objectives of this title are to provide and maintain services and facilities to promote the physical and mental health of mothers during the maternity period and of children, including medical, nursing, dental, hospital and related services and facilities required for maternity care, preventive health work and diagnostic services for children, school health services, care of sick children, and correction of defects and conditions likely to interfere with the

normal growth and development and the educational progress of children. The development of more effective measures for carrying out the purposes of the title is contemplated, including demonstrations and the training of personnel for state and local maternal and child health services.

Of the total appropriation to be made available under this title, \$5,000,000 will be allotted by the Secretary of Labor to the several states, and allotments must be matched dollar for dollar by state or state and local funds. In determining what amount each state shall be allotted, the Secretary of Labor will take into consideration the number of children under 21 years of age in such state in relation to the total number of children under 21 years of age in the United States.

The remainder will be allotted to the states by the Secretary of Labor after taking into consideration for each state such factors as the number of mothers and children under 21 years of age in the state for whom the services and care are to be made available, and the cost of furnishing such services and care to them, the special problems of maternal and child health and the financial need of the state for assistance in carrying out the state plan.

Approval of State Plans.—Allotments will be paid to those states whose plans for developing programs and for providing care and services have been approved by the chief of the Children's Bureau. In order for a plan to be approved by the chief of the Children's Bureau, it must:

1. Provide for financial participation by the state.

2. Provide for a statewide program or for extension of the program each year so that it will be in effect in all political subdivisions by July 1, 1955.

3. Provide that services and facilities shall be available to all mothers and children in the state or locality who elect to participate in the benefits of the program. There must be no discrimination because of race, creed, color or national origin, and no residence requirements.

4. Provide for the administration of the plan by the state health agency, or for the supervision of the administration of the plan by the state health agency, and for appropriate coordination of the plan with the general public health and medical care program of the state health agency which will be authorized to develop agreements or cooperative arrangements with

other state or local public agencies whose functions include the provision of services similar or related to those furnished under the state plan.

5. Be made part of the state plan for maternal and child health services submitted in accordance with the provisions of title V, part 1, of the Social Security Act.

6. Provide effective methods of administration, including the establishment and maintenance of personnel standards on a merit basis, standards for professional personnel rendering medical, dental, nursing and related types of care or service, and standards for hospital and other institutional care and services. Standards are to be established by the state health agency after "consultation" with professional advisory committees appointed by the state health agency. Mothers and children, or persons acting in their behalf, will be permitted to select, from among those meeting standards prescribed by the state health agency, the physician, hospital, clinic or health service agency of their choice. Where no such selection is made, the state plan must set forth the method by which the care will be made available. The bill provides that the physician, hospital, clinic or health service agency selected may refuse to accept the case.

A state plan must provide for adequate remuneration for the persons and institutions providing medical care and related services, must provide opportunities for postgraduate training of professional and technical personnel, and for such use of health centers, hospitals, clinics and health service agencies, public and voluntary, as will achieve the satisfactory distribution and coordination of preventive, diagnostic, consultative and curative services provided by general practitioners, specialists, public health personnel, laboratories and others.

A state plan must provide payments to individual physicians for care furnished under this title on a per capita, salary, per case or "per session" basis or, in the case of consultations or emergency visits, on a fee-for-service basis. A state plan must furthermore provide for the purchase of care from public or voluntary hospitals and other health service agencies included under the state plan on a basis related to cost for providing the care.

7. Provide for adequate dissemination of information with regard to the maternal and child health services to be made available under this title.

8. Provide for reports to the chief of the

Children's Bureau.

9. Provide for cooperation with medical, health, hospital, nursing, education and welfare groups and organizations in the state.

10. Provide (a) for a general advisory council appointed by the state health agency and composed of members of the professions or agencies, public and voluntary, that furnish care or services under the state plan, and other persons representing the public who are informed on the need for and problems related to the provision or receipt of maternal or child health services and medical care of mothers and children, and (b) for technical advisory committees appointed by the state health agency composed of medical and other professional groups concerned with the administration or operation of a state plan. If the state health agency administers a program for services to crippled children, the same general advisory council shall serve both the maternal and child health and the crippled children programs.

11. Provide for a fair hearing before the state health agency for any mother or other person acting in behalf of a child whose claim for services is denied or for any physician or other person, organization or institution participating or desiring to participate in furnishing services or facilities under the plan.

Federal Advisory Committees.—The chief of the Children's Bureau will formulate general policies for the administration of this title after "consultation" with a conference of state health officers and an advisory committee composed of professional and public members and, as necessary, technical advisory committees which "he" shall appoint.

Title II. Services for Crippled Children

The stated objectives of this title are to enable each state to provide and maintain services and facilities for the care and treatment of children who are crippled, otherwise physically handicapped or suffering from conditions which lead to crippling or physical handicaps, including services for locating such children, for providing medical, surgical, corrective and other services and care, and facilities for diagnosis, hospitalization and after-care for such children. Demonstrations and the training of personnel for state and local crippled children's services are contemplated.

Out of the total appropriation authorized under this title, the Secretary of Labor will allot to each state such part of \$2,500,000 as he finds that the number of children under 21 years of

age in such state bore to the total number of children under 21 years of age in the United States in the latest calendar year for which the Bureau of the Census has available statistics. Such allotments must be matched dollar for dollar by state or state and local funds made available for services for crippled children.

The remainder of the appropriation will be allotted to the states by the Secretary of Labor after taking into consideration for each state such factors as (1) the number of crippled children under 21 years of age in the state for whom services and care are to be made available and the cost of furnishing such services and care to them, (2) the special problems of crippled children and (3) the financial need of the state for assistance in carrying out the state plan.

Approval of State Plans.—Allotments will be made to the states which have submitted to and had approved by the Children's Bureau state plans for developing programs for crippled children. As in the case of state plans developed under title I, the bill indicates the contents a state plan must have to be approved. Such a state plan for services for crippled children must meet essentially the same requirements specified for plans developed under title I except that, if a state agency other than the state health agency is designated by state law to administer the program for crippled children, that agency may continue as the state administrative agency until July 1950, after which the state health agency must have jurisdiction. Services to be provided under this title must be available to all crippled children without regard to financial status, race, creed, color or national origin, and there may be no residence requirement. Individual physicians will be paid as indicated in title I, except that title II makes no provision for payment on a per capita basis.

Federal Advisory Committees.—The chief of the Children's Bureau will formulate all general policies for the administration of this title after "consultation" with (1) a conference of executive officers of state agencies administering the program for crippled children under this title and (2) an advisory committee composed of professional and public members and, as necessary, technical advisory committees, which "he" shall appoint.

Title III. Child Welfare Services

The declared purpose of title III is to assist each state public welfare agency to develop effective statewide child welfare programs and measures, including the training of personnel,

for extending and strengthening public child welfare services, and for providing suitable care and protection for children without parental care and supervision, and children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent.

For each of the fiscal years ending June 30, 1946, and June 30, 1947, the Secretary shall allot to each state such part of \$10,000,000, and for the fiscal year ending June 30, 1948, and for each fiscal year thereafter such part of three-fourths of the total amount appropriated for child welfare services as he finds that the number of children under 21 years of age in such state bore to the total number of children under 21 years of age in the United States in the latest year for which the Bureau of the Census has available statistics. Such allotments must be matched dollar for dollar by state or state and local funds made available for child welfare services.

For the fiscal year ending June 30, 1946, and for each fiscal year thereafter the remainder of the sum appropriated for child welfare services will be allotted to the several states by the Secretary of Labor, taking into consideration for each state such factors as (1) the number of children under 21 years of age in the state for whom child welfare services are to be made available and the cost of providing such services and care to them, (2) the special problems of child welfare and (3) the financial need of the state in carrying out the state plan.

Approval of State Plans.—Allotments will be made to states which have submitted to and had approved by the Children's Bureau state plans for child welfare services. The chief of the Children's Bureau will be required to approve any state plan which meets the following conditions:

1. Financial participation by the state.
2. A statewide program, including at least guidance and social service to or in behalf of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent, or for the extension of the program each year so that such guidance and service will be available to all children in need thereof, in all political subdivisions of the state not later than July 1, 1955.
3. Services and care furnished under the plan must be made available to all children without regard to financial status, race, creed, color or national origin, and without residence requirements.
4. Administration or supervision of the plan

by the state public welfare agency and coordination of the plan with the general public welfare program of the state public welfare agency which will be authorized to develop agreements or cooperative arrangements with other state agencies whose functions include the provision of services related to the services furnished under the state plan.

5. The state plan must be made a part of the plan for child welfare services submitted in accordance with the provisions of title V, part 3, of the Social Security Act.

6. The plan must provide such methods of administration as are found by the chief of the Children's Bureau to be necessary for the proper and efficient operation of the plan, including methods relating to the establishing and maintenance of personnel standards on a merit basis.

7. The state public welfare agency must make such reports in such form and containing such information as the chief of the Children's Bureau may from time to time require.

8. Appropriate cooperation must be provided for with state and local agencies, public and private, concerned with child health, education, child welfare and related subjects.

9. The plan must provide for a program of training for personnel rendering child welfare services.

Definitions.—As used in this title, the term "child welfare services" means (1) guidance and social service to or on behalf of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent; (2) placement, supervision and maintenance of children in foster family homes; (3) temporary care of children who are dependent, neglected or delinquent, or in danger of becoming neglected or delinquent, especially in areas where children would otherwise be detained in jail or would be deprived of necessary protection and shelter or study of their special needs; (4) specialized services needed to strengthen and improve the programs of public institutions caring for children; (5) care in foster homes or day care centers for children whose mothers are employed or whose home conditions require care outside their own homes during any part of the twenty-four hour day, including services necessary to assure proper use of day care facilities and to safeguard children receiving care; (6) payment of the cost of returning nonresident children to their own communities; if such return is desirable and the cost thereof cannot otherwise be met, and (7) cooperation with state and community

agencies in improving conditions affecting the welfare of children.

Title IV. Administration

If the Secretary of Labor finds that in the administration of any plan approved under the bill there is a failure to comply substantially with any requirement specified as necessary for inclusion in a state plan, he may withhold further allotments.

The Children's Bureau will be directed to make and aid the financing of such studies, demonstrations, investigations and research as will promote the efficient administration and operation of the legislation.

Title V. General Provisions

The chief of the Children's Bureau, subject to the approval of the Secretary of Labor, will make and publish such rules and regulations as are necessary to the efficient operation of the legislation and will be required to submit each year to the Congress a full report of such administration.

As used in the bill, the term "state" means any state of the United States, the District of Columbia or any territory or possession of the United States.

COMMUNIQUE

July 11, 1945.

To the Editor:

Have been receiving The Journal and hope you will continue sending it to me in the future. I have changed APO's several times since I last wrote you but haven't moved in three months.

Saw Dr. Joe Monfort at a medical meeting a couple of months ago. He presented a paper on the treatment of burns which was very good. We had a good discussion about Arkansas after the meeting and he is about as anxious as all of the others I have met from over here to get back home and get his practice rolling again.

Spent a few hours with James Newbill, of Benton, and Wally Thomas, of Pine Bluff, this week and plan on going down to visit them for a couple of days next week. There are supposedly a lot of other Arkansas men here on this island but so far I haven't had the good fortune to meet them.

Guess we will all be on the move before long as things are pretty much well finished here, at least as far as the Air Corps is concerned. Thanks again for The Journal and Random Thots.

Sincerely,

E. J. Ritchie, Maj., M. C.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart

Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

The Committee has received several requests for a survey of rheumatic fever, which in this section of the country can be quite protean in its clinical manifestations. Herewith follows part I of "The Treatment of Rheumatic Fever," by Lt. Comdr. Geo. C. Griffith (MC) USNR, et al.:

"This summary of the treatment of rheumatic fever is a brief digest of the experiences of the physicians of the Navy Rheumatic Fever Unit at Corona, California. The care of a large number of patients with rheumatic fever has afforded an opportunity to evaluate many forms of treatment. We trust this summary will prove helpful and at the same time lend a conservative note to the chorus of enthusiasm which is recently manifest.

"The essential problem in the treatment of rheumatic fever is to prevent disabling heart disease. If the fulminating polycyclic type could be attenuated and shortened, and if the monocyclic and subclinical types could be prevented from causing severe inflammatory-like reactions in the vascular tissues, then disabling heart disease could be avoided. It is believed that angitis may continue indefinitely after its initiation by antigen-producing organism in the throat. Since there is, as yet, no effective method of destroying the antigen-producing bacterial agent, nor of suppressing the destructive reactions in the terminal arterioles of the vascular tree, there must be an alignment of all the available therapeutic agents to prevent death or at least to reduce the cardiac damage to the minimum.

"The treatment of the rheumatic state is divided loosely into two parts according to the stage of the disease—the stage of activity and the stage of quiescence.

"The stage of activity: The point at which the physician should start treatment of the active rheumatic state is difficult to determine. Every patient with an acute hemolytic streptococcal sore throat is a potential rheumatic fever subject, especially if he comes from a family with a rheumatic background, or if he has had a previous attack of rheumatic fever. The patient with a hemolytic streptococcal infection of the throat should be observed over a longer period of time than that usually practiced, to detect the

onset of an active rheumatic state at the earliest possible moment. The patient who is slow in recovering from the acute hemolytic streptococcic throat infection and who fatigues easily, has a slight evening fever, has an elevated sedimentation rate and a high antistreptolysin titre is very likely to develop rheumatic fever. With the onset of the active stage of rheumatic fever early recognition is requisite and the patient should be placed immediately on a carefully planned and administered regime.

"Rest: Absolute bed rest is imperative and must be continued in varying degrees until the signs of activity have disappeared. Rest means limited activity in bed, quiet surroundings conducive to sleep, and diversionary facilities. As the patient improves, rest must be judiciously proportioned to the state of the disease.

"Nursing care: Nursing care wisely and intelligently carried out does much to promote rest, sleep, and mental diversion. A daily bath with tepid water, clean linen, attention to diet and to elimination are elementary but essential nursing services.

"Diet: The diet should be highly nutritious, of at least 3,500 calories per day, given in liquid to soft or solid form dependent upon the patient's temperature and general condition.

"Salicylates: Salicylate is the only drug which has survived the test of time in the treatment of rheumatic fever. Most clinicians agree that the salicylates have an analgesic and antipyretic action in rheumatic fever. Few, however, feel that salicylates modify the progress of the disease process. Salicylates do relieve pain, lower the temperature, and hasten the absorption of the transudate in the serous cavities during the first attack, but they have no effect on the disease process. Furthermore, the salicylates have little if any analgesic and antipyretic effect in the second and third cycles, and in the course of the prolonged monocyclic cases. Salicylates in our studies do not prevent recurrences, as shown by studies soon to be published.

"Salicylates in the form of sodium salicylate gr. XXV and sodium bicarbonate gr. X every 4 hours, or aspirin gr. XX and sodium bicarbonate gr. XX every 4 hours, day and night with 3,000 c.c. of water, elevate the blood salicylates to the optimum level of 30 to 50 mg. per 100 c.c. of blood within 24 to 48 hours. If the salicylates are administered absolutely regularly with an adequate quantity of water the blood level remains at or near the optimum. Another study carried on in this unit shows that salicylates are

promptly absorbed from the upper gastro-intestinal tract and appear in the blood within 15 to 30 minutes, and that the optimum level can be maintained with the aforementioned dosage. The excretion of the drug is rapid through the kidneys so that within 24 hours after the cessation of the salicylates very little trace, if any, can be found in the blood. The drug may be administered in the form of the sodium or acetyl salts without alteration of the optimal blood level. The drug should never be given in the enteric-coated tablets, as it is absorbed from the upper gastro-intestinal tract and if the enteric-coated tablets are slow in disintegrating in the colon, a toxic dose may suddenly be absorbed from the accumulated tablets resting there.

"The salicylates are unpleasant to take orally and may induce tinnitus aurium, burning of the eyes, sweating, cerebral excitement, irritability and irresponsibility, as well as gastric irritation. However, in the above mentioned dosage such symptoms are rare. If the patient is ambulatory and develops signs and symptoms of salicylism, the return to rest promptly affords relief. Gastric irritation is readily avoided by the ingestion of abundance of water and food with the drug. The only reason for the administration of bicarbonate with the salicylates is to prevent gastric irritation. Upon ingestion, the hydrochloric acid of the stomach changes the sodium and acetyl salts to salicylic acid. In our experience, the use of somewhat smaller doses of sodium bicarbonate than those reported by Smull et al. (1944) did not lower the blood salicylate level. Proof of this will be submitted in a subsequent paper.

"The intravenous administration of the drug is undesirable and unnecessary except in those very rare instances where salicylates cannot be given orally. When the salicylates are swallowed according to the aforementioned dosage, the level is consistently maintained. If the level is low, the patient is not receiving the drug regularly; if the level is too high, there has been an insufficient fluid intake. The administration of 1,000 c.c. of 1 per cent sodium salicylate intravenously over a period of 6 to 10 hours not only tires the patient but may throw an added strain on the right heart. The administration of 10 c.c. of a 10 per cent solution intravenously raises the level adequately, does no harm when given at the rate of 1 c.c. per minute through a 26-gauge needle, but may sclerose the veins making frequent administration difficult. In congestive failure there is slow absorption of the drug. Our experience has been that salicylates do not benefit the patient materially in congestive failure. Salicylates

per rectum are very poorly absorbed. A subsequent paper in the series from this Unit shows that no appreciable amount of the drug reaches the blood stream when administered per rectum. Therefore, we believe oral administration is the method of choice.

"Digitalis: In our experience, digitalis is of doubtful value in the active stage of the disease. Its use is indicated only with the onset of congestive failure during the course of an active carditis. The drug is administered in full dosage orally. The method calls for one U. S. P. unit per 10 pounds of body weight, adding one unit (gr. $1\frac{1}{2}$) for each additional day required to complete digitalization, and thereafter maintained by one U. S. P. unit (gr. $1\frac{1}{2}$) daily. It has not been necessary to use digitalis or quinidine in the treatment of the very rare instances of paroxysmal auricular fibrillation and the more rare paroxysmal tachycardias, as these subside spontaneously with rest. Congestive failure has occurred rarely in the quiescent stage of the disease, and therefore digitalis has been used infrequently. Quinidine is seldom used because of the infrequent occurrence of the paroxysmal tachycardias. Premature contractions occurring in the acute phase of the disease are not eliminated by the use of a daily ration of quinidine. Rest and the avoidance of cigarettes are of distinct value. Quinidine and paredrine hydrobromide have not been useful in the correction of arrhythmias during the stage of carditis.

"Oxygen: Oxygen is of great value in the treatment of rheumatic pneumonitis and congestive failure. Restlessness, cyanosis, dyspnea, and even tachycardia are relieved by the administration of oxygen. Oxygen is given early and as long as the patient requires its help. It is easily administered by the nasal tube method passing approximately 4 liters of oxygen per minute through a humidifier and into the nasopharynx. By this method the coldness of the oxygen tent is avoided, the patient is less annoyed and feeding and nursing care are rendered with greater ease. The saving in the amount of oxygen used is at least one-half.

"Diuretics: Diuretics are used only when there is evidence of congestive heart failure. The diuretics are believed to be of greater value than any other drug in the treatment of congestive failure in acute carditis. It has been observed here that right-sided failure is frequently primary. It is believed that this is due to the associated rheumatic pneumonitis which decreases the vascular pulmonary tree to such an extent that the blood pressure in the lesser circulation

is elevated and throws a marked strain on the right ventricle. The diuretics in the form of theobromine sodium acetate in dosage of $7\frac{1}{2}$ grains or aminophyllin gr. III q.i.d., are effective. If the engorged liver and the peripheral edema persist when absolute bed rest, digitalis, and the xanthine diuretics have been used, then mercupurin or salyrgan intravenously have been found helpful. In acute carditis, the mercurial diuretics may produce an anuria and therefore must not be used if there is evidence of renal impairment or inflammation.

"Sulfa Drugs: The sulfa drugs have been used in a large number of patients with rheumatic fever because of the apparent relationship between the streptococcal throat infection and the acute rheumatic state. No sulfa drug has been used for the treatment of rheumatic fever, per se, in the Rheumatic Fever Unit. A review of 240 unselected case records show that a total of 46 patients had been treated at the onset of the rheumatic fever with various forms of sulfonamides, chiefly sulfadiazine. Of these 46 patients a good response was reported in 4, no response in 20, condition worse in 11, and no comment in 11 cases. Rheumatic fever patients with intercurrent tonsillitis, sinusitis, or otitis media with positive hemolytic streptococcal cultures have been treated with a full dosage of sulfadiazine. The salicylates were continued at the same time. Recrudescence of the rheumatic activity has been very rare. In cases so treated, only three cases of reactivation occurred. Investigations by Curn, 1938, Swift, Moen and Hirst, 1938, have shown that the drug is useless in the treatment of rheumatic fever, and from the above review of the 46 cases treated this opinion is confirmed. Therefore, the use of sulfa drugs in the treatment of rheumatic fever should be condemned."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

\$34,000 IN WAR BONDS AS PRIZES

for the best art works by physicians, memorializing the medical profession's "Courage and Devotion Beyond the Call of Duty" (in war and in peace).

This prize contest is open to any physician member of the American Physicians Art Association, including medical officers in the armed forces of the United States and Canada.

Full information available on request of the sponsor, Dr. Francis H. Redewill, Flood Bldg., San Francisco, Cal., or Mead Johnson & Co., Evansville, Ind., U. S. A.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

ANY evidence which helps to answer the question of whether or not an individual under treatment for tuberculosis is a source of danger to others is of vital value to the physician, the patient and the public. The examination of gastric contents for the presence of tubercle bacilli is rapidly becoming an essential procedure in those cases in which other tests fail to give a clear-cut answer.

TUBERCLE BACILLI IN GASTRIC CONTENTS

Examination of gastric contents for tubercle bacilli in the fasting patient, while a routine procedure among children at Muirdale Sanatorium since its inception, has only gradually been extended to adults. The now demonstrated importance of the procedure in aiding diagnosis, in guiding therapy, and in the evaluation of the patient before discharge has come to be recognized rather slowly.

Examination of gastric contents for tubercle bacilli is used by the author on all patients who deny raising sputum or whose sputum is negative. It is also used in cases where there is doubt as to the source of the sample presented. Since a single negative gastric aspiration is not considered conclusive, repeated aspirations are performed at intervals. Some patients have cultures of both sputum and gastric contents. Such a procedure expedites the diagnosis of cases with suspected active lesions.

The material used for examination consists of undiluted gastric contents aspirated from fasting patients the first thing in the morning. Previous to 1941, culture and guinea pig inoculation were done simultaneously on all specimens. Since that time only cultures are used since they are very accurate and the difference in the results of the two procedures did not warrant continued use of the guinea pig. All specimens are cultured on three slants of Petraghani's medium, and contamination is reported when all three tubes are involved, an infrequent occurrence.

One cannot rely on smears of concentrated specimens of gastric contents for the detection of tubercle bacilli—the number of positives is always small. In certain diagnostic cases animal

inoculations, in addition to cultures, are necessary.

The patient who has negative sputum cultures, but who has tubercle bacilli only by gastric examination, is not a so-called innocuous patient. In our survey we observed 21 such patients who on subsequent sputum examination were positive on concentrated smear or culture. Therefore, these patients can and do develop subsequent positive sputum. A patient with a positive gastric content should be treated exactly like a patient with a positive sputum.

Before the author's patients are discharged it is necessary that they have negative gastric aspirations in the absence of sputum. This is done to avoid the discharge of active cases. In order for a patient to be discharged with medical advice as inactive he must have at least five successive negative examinations. If negative on those examinations, and if other findings warrant it, the patient is discharged as having no evidence of active disease.

During the past five years, 868 adults at Muirdale Sanatorium had a total of 4,204 examinations of gastric contents. Of these, 404 (46.4 per cent) had negative gastric contents; they received 1,338 examinations. The remaining 464 (53.6 per cent) cases had 2,866 examinations, of which 1,271 (44.3 per cent) were positive. The number of examinations per case varied, the average for the negative group being 3.3; for the positive group 6.2 per case. The number of repeats depends upon the individual case, just as in sputum examinations.

Thus there are two groups of patients—those with positive and those with negative gastric contents. Each of these groups in turn is divided

into three subgroups: The no-sputum group, the negative-sputum group and the positive-sputum group.

No fine line of distinction can be drawn between these three subgroups. Occasionally patients deny raising sputum and yet the specimen they send in contains tubercle bacilli. Also, there are patients who state they raise sputum, when the sample is only saliva, or secretions from a chronic naso-pharyngitis common in the locality. It is realized that, if numerous and timely sputum examinations were done, a small percentage would have proved positive. This is not deemed economically advisable, as valuable time may be lost. Instead, a simple reliable gastric aspiration can be done with culture results known in a few weeks.

Significantly, 21 out of 282 patients (7.5 per cent) became sputum-positive after being positive at first only on gastric aspiration. This occurred on the average of about six months later. This small group of patients reveals an important fact because, as has been previously pointed out, these cases cannot be considered as harmless, and careful observation and timely sputum examinations will find that some of these cases are sputum-positive.

It is important to do consecutive gastric examinations on adult patients in whom it is impossible to determine the status of activity from a roentgenogram and in whom the sputum, if present, is negative. If five consecutive aspirations are negative on culture, it is most likely that there is no evidence of active pulmonary tuberculosis.

Of the 404 patients in our series who never had a positive gastric aspiration there were 224 who had either no sputum or negative sputum. In spite of the diagnosis of pulmonary tuberculosis on admission the author feels justified in recording a case as having no evidence of active tuberculosis if a series of gastric aspirations is negative as well as sputum cultures.

The remaining 180 of the 404 with negative gastric contents had, at some time, tubercle bacilli in the sputum. The main reason that there were no positive aspirations in this group is because, in most of these patients, the examinations followed by some ten months a positive sputum, and many of these cases were on the road to recovery.

It is possible, however, to have a negative gastric content and a positive sputum, which does not invalidate the reliability of this procedure. There were several patients who became

gastric-content-negative and sputum-negative and then later became sputum-positive. Unstable cases of tuberculosis are likely to fluctuate like this.

In the past year and one-half it has been the author's policy to do five consecutive aspirations on negative cases. If these examinations are negative by culture, the individual is considered as having no evidence of active pulmonary tuberculosis. In the majority of cases it is wise to hold these patients for observation until the cultures are completed. Of the cultures, over 95 per cent, where positive, will show growth within six weeks. However, the cultures are kept until eight weeks. The patient is then re-X-rayed and his case is re-evaluated. Most of these are discharged with no clinical evidence of active tuberculosis.

The Significance of Tubercle Bacilli in Gastric Contents, David D. Feld, M. D., *The American Review of Tuberculosis*, December, 1944.

COMMUNIQUE

Camp Gusen, Austria,
July 20, 1945.

To the Editor:

Having to write for *The Journal* has slipped my mind for these past couple of months. At the present time, I am sanitation officer for one of the "ex P. W." camps. We have around 6,000 disarmed people now plus 2 platoons of a field hospital. This place was really a mess when we first came here. An evacuation hospital had done a wonderful job before us. Some of the problems of these camps were tremendous at first.

I spent six weeks in a hospital in France at the close of the war with infectious hepatitis. Went to England also. In all, it was a very pleasant "rest."

Please put me on the mailing list for *The Journal*. I have missed it very much.

Sincerely,
William W. Johnston, Maj., M. C.

COMMUNIQUE

July 5, 1945.

To the Editor:

Please continue sending me *The Journal* of the Arkansas Medical Society. I find it an invaluable means of keeping up with news of doctors in the service and the articles contribute interest to this life which has a tendency to be monotonous.

Yours truly,
Philip T. Cullen, Capt., M. C.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

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W. R. BROOKSHER, M. D., Editor
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EDITORIAL

THE MATERNAL AND CHILD WELFARE ACT
OF 1945

Senator Pepper and nine other members of
the Senate Committee on Education and Labor
have introduced a bill (see analysis by Bureau
of Legal Medicine and Legislation in this issue)
designed to extend the provisions of the Social
Security Act by increasing materially the funds
available for maternal and child health services,
services for crippled children, child welfare serv-
ices, and an increased personnel of the Chil-
dren's Bureau necessary for administration. In-
cluded are suggestions for research and for edu-
cation of personnel. This bill is perhaps the offi-
cial opening of a campaign to make permanent
some of the activities that prevail under the so-
called EMIC program.

Early in the establishment of EMIC, The Jour-
nal predicted that the Children's Bureau would
not be happy until permanence had been given
to this tremendous expansion of its activities.
As with much other legislation for social wel-
fare, few would oppose the objectives sought,
namely promotion of the physical and mental
health of mothers during maternity and of their

children, preventive health work and diagnostic
services for children, school health services, the
care of sick children and the correction of phys-
ical defects. The allotment of federal funds to
the individual states is now a well established
principle in our government. The public has a
right to ask that need be established before
funds are allocated. The wisdom of placing con-
trol in the Children's Bureau through insistence
that plans must be approved by the chief of that
bureau before funds can be granted is subject to
doubt. The chief of the Children's Bureau is to
formulate the policies after consultation with the
state health officers and an advisory committee.
Nothing in the act says that the advisory com-
mittee is to have any authority or that its advice
need necessarily be followed. The Journal has
previously criticized adversely the political tech-
nic which permits the chief of a government bu-
reau to select his own advisory committee and
then even to disregard the advice of the com-
mittee that he himself selects.

In submitting the bill, Senator Pepper offered
some interesting estimates. Thus he said:

"Medical care and health supervision of chil-
dren is costly in dollars. Reliable authorities es-
timate it comes to somewhere in the range of
\$25 to \$40 a year for each child in the United
States. With 40,000,000 children under 18 that
represents a total of at least \$1,000,000,000 for
the country. A federal appropriation of \$75,-
000,000 for maternal and child health and for
crippled children for a year cannot go very far
in meeting these all-over health needs of chil-
dren."

Almost coincidentally with the offering of this
proposal came an announcement in the press
indicating that Secretary Schwollenbach of the
Department of Labor desired to see the Chil-
dren's Bureau removed from that department
and possibly incorporated in a new department
of the government to be devoted to health and
welfare. Whether or not President Truman, in
his apparent wish to consolidate government
agencies, will suggest the establishment of a new
department in the cabinet to include the Chil-
dren's Bureau, that agency long since should
have been integrated with the other health ac-
tivities of the nation.

NARCOTIC PRESCRIBING BY TELEPHONE

The United States Commissioner of Narcotics
has called attention to the difficulty that has
resulted throughout the country because of the

frequency with which physicians telephone their narcotic prescriptions. This practice, he reports, has resulted in abuse and in illicit traffic, many peddlers and addicts using this means to obtain morphine. In at least one community the practice has resulted in a federal grand jury investigation. The report of this grand jury, after describing the facts developed during the investigation as disclosing "a rather shocking disregard of the law" and as reflecting a condition "intolerable and wholly unwarranted," continued:

"We do not wish to place ourselves in a position or attempt to determine when or under what manner or in what quantities a person may need narcotics for the alleviation of pain or suffering, but we feel that we are in position to say that the conditions above referred to are intolerable and wholly unwarranted and, if continued, can only result in an indictment wherever warranted. It has been stated in defense of this condition that the doctors are overworked and prescriptions by telephone are time savers. We are conscious of the overworked condition of most of our physicians, but we disagree with the contention that such practice is warranted in order to save time. It is a matter of obeying or violating the law.

"We are making this report at this time in the hope that these abuses, as well as any others not mentioned herein, may be speedily corrected. We propose to pursue this investigation further when next called and will then take such action as the facts and circumstances warrant at that time."

Under existing regulation, the furnishing of narcotics pursuant to telephone advice of physicians is prohibited, whether prescriptions covering such orders are subsequently received or not, except in an emergency. In such an emergency, a druggist may deliver narcotics through his employee or responsible agent pursuant to a telephone order only if the employee or agent is supplied with a properly prepared prescription before delivery is made and this prescription must be turned over to the druggist and filed by him as required by law. Physicians will aid materially in preventing the abuse referred to by the Commissioner of Narcotics if they restrict orders for narcotics by telephone strictly to actual emergency cases.

—J. A. M. A., August 11, 1945.

RANDOM THOTS OF THE SECRETARY

July 21st. "Colonel James Roosevelt, on active duty with the Marines since 1940, arrived at the Naval Hospital in San Diego for a 'rest and routine check-up' after seven months in the Philippines"—TIME, July 23rd. Wish that

Sisco, Monfort, Hanchey, Causey, Johnston, Hundley, Dunaway, Lyons, Nisbett, Cullen, Holder, Mobley, Ritchey and others knew the right people.

July 24th. J. Wirt Burnett, lately of Germany and Austria with the 44th Division, passes through for DeWitt and we acquire new knowledge of what an army officer undergoes in seeking quarters at a new station as we drive him about town seeking apartments for five medical officers shortly to report to Camp Chaffee, making more firm our conviction that all the hardships of war are not on the battlefield.

July 30th. Today we become a licensed airplane pilot, proving that old dogs can be taught new tricks but perhaps naught else.

Aug. 3rd. Ray Williams en route to a new assignment visits and, to our great interest, tells many of the mysteries of bombing missions from England. But for sheer hardship in the practice of medicine, we nominate the flight surgeon who goes aloft in zero-zero ceiling with returning bombers all over the murky English skies to treat his injured crewmen at another base. This seems the ultimate in physical and mental punishment to be given any practitioner of medicine.

August 11th. We have made no armchair strategic remarks to date on the conduct of this war but we now suggest that no atomic bombs be left surplus for disposition—they can be disposed of best while this talk of surrender goes on.

August 14th. 105,226,101 faces are lost.

August 15th. And it is ended! From now on it becomes the duty of Americans to bring the blessings of peace to this country and to the world, an obligation which will demand the utmost in character and fortitude. To Arkansas' returning servicemen we extend a cordial welcome; to those who sleep beneath crosses, we pledge sacred memories for all time.

OBITUARY

ALBERT S. J. COLLINS, 72, Monticello, died July 27th. A life-long resident of Monticello, he graduated from Memphis Hospital Medical College in 1894 and had practiced in Monticello for over 40 years. He was a Fellow of the American Medical Association and an honorary member of the Drew County Medical Society and of the Arkansas Medical Society.

ALVIN BENTON CALDWELL, age 65, Forrest City, died July 28th following a sudden illness. Born in Saint Francis County, he had spent all of the years of his life in the county with the exception of one year when he was at Davidson, Oklahoma. He graduated from the Memphis Hospital Medical College in 1911. In addition to his membership in the Saint Francis County Medical Society and the Arkansas Medical Society, he was a member of the Masonic Lodge and of the Methodist Church. He had served as county health officer since 1942. Surviving relatives are his wife, a sister and four brothers.

PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society was addressed August 2nd by Lts. Paul T. Stroud and James O. Cooper on military medicine.
J. H. McCurry, Secretary.

The Carroll County Medical Society met August 7th and adopted the following resolution: "Resolved, That the Carroll County Medical Society go on record as objecting to health nurses giving serum, antitoxin, prophylaxis or treatments of any kind without the recommendation of a licensed physician." The following were appointed as the Committee on Industrial Health: D. K. McCurry, J. H. Bohannon and J. C. Blackwood.

D. C. Roberts, Secretary.

CORRESPONDENCE

Caddo-Shreveport Health Unit,
945 Milam Street,
Shreveport, Louisiana,
July 30, 1945.

To the Editor:

Please note the new address for sending my Journal of the Arkansas Medical Society. I certainly am glad to be this much nearer to Arkansas. Of course, I am sorry that Dr. Allen Cohn had a heart attack and will have to take it easy for some time. Since Arkansas is in U.S.P.H.S. District No. 7, I cannot hope to be sent home because I am now assigned to District No. 4.

Yours,

Wm. L. Bunch,
Assistant Surgeon (R),
U. S. P. H. S.

A SCHOLARSHIP

awaits your daughter in the U. S. Cadet Nurse Corps of the U. S. Public Health Service.

Patriotic and foresighted young women have answered their country's call to become nurses, through the Cadet Nurse Corps program of the U. S. Public Health Service. A limited number of Cadet Nurse three-year scholarships still are available to young women between the ages of 17 and 35. Minimum requisites are good health, graduation from high school with satisfactory grades and ability to meet your nursing school requirements.

For further information, call or write today: Recruitment Officer, U. S. Cadet Nurse Corps, Room 336, State Capitol, Little Rock, Arkansas.

PERSONALS AND NEWS ITEMS

E. J. Horner has been re-elected surgeon of the Jonesboro post of the American Legion for the twentieth term.

H. W. Savery has been elected surgeon of the Van Buren post of the American Legion.

Capt. Ben H. Pride, Fort Smith, is now stationed at the Redistribution Center, Camp Adair, Oregon.

Lt. Comdr. Burch V. Raley, Little Rock, has returned from duty in the Southwest Pacific and is now assigned to the Office of Naval Officer Procurement, San Francisco.

MARRIED—On July 25th, at Fort Smith, Marion B. Leverett, McGehee, and Miss Betty Jane Perryman, Fort Smith.

L. J. Kosminsky, Texarkana, has been elected secretary of the State Medical Board of the Arkansas Medical Society.

"Lesions of the Cervical Intervertebral Disc: Clinico-Pathologic Study of Twenty-two Cases," by Jefferson Browder, Brooklyn, and Robert Watson, Little Rock, appeared in the New York State Journal of Medicine, April 1, 1945.

Capt. Marlin Hoge, Fort Smith, who has been on duty in the European theater, visited home on leave during August.

Maj. J. W. Burnett, Texarkana, has returned on leave from the European theater.

Lt. Comdr. Geo. F. Stocker, Fort Smith, has been appointed assistant resident in radiology at The New York Hospital, New York, for 1945-46.

Melvin L. Spear has been discharged from military service and has returned to his duties as Arkansas representative for A. S. Aloe and Company, Saint Louis.

Lt. Paul T. Stroud, Jonesboro, is now stationed at Naval Hospital Norfolk, Portsmouth, Virginia.

The State Medical Board of the Arkansas Medical Society has elected the following officers: President, R. J. Haley, Paragould; vice-President,

Robert Hood, Russellville, and secretary, L. J. Kosminsky, Texarkana.

Capt. James O. Pierce, Marked Tree, is now assigned to Troop Carrier Command, Marfa Army Air Field, Marfa, Texas.

Lt. Comdr. Chas. D. Belcher, Warren, is now assigned to Naval Air Station, Brunswick, Maine.

Lt. Comdr. Chas. S. Paddock, Fayetteville, is now overseas.

Maj. S. S. Kirkland, Van Buren, has received the Legion of Merit for exceptional performance of duty in the European theater.

A. F. Hoge, Fort Smith, spent a recent vacation in New Orleans.

Frank M. Burton, Hot Springs National Park, who served three years in the European theater, has been released from service.

Maj. Alfred Hathcock, Fayetteville, who has been stationed in England, has returned home on leave.

Lt. Col. Allen R. Russell, Pine Bluff, is hospitalized at Ashburn General Hospital, McKinney, Texas.

"Anatomical and Functional Reductions of Fractures of the Pelvis" by F. Walter Carruthers, Little Rock, appeared in the July issue of The American Journal of Surgery.

BORN—To Lt. Comdr. and Mrs. George F. Stocker, Fort Smith, a daughter, Patricia, on July 29th in New York.

Capt. Wendell W. Ward, Fordyce, is now stationed overseas with a general hospital.

Maj. Chas. H. Reagan, Marked Tree, is now stationed at Camp Gruber, Oklahoma, with the 122nd Evacuation Hospital.

L. T. Evans, Batesville, attended the Southern Pediatric Seminar at Saluda, N. C., during July.

Maj. E. Driver Rowland, Hot Springs National Park, now stationed overseas, has been elected a Fellow of the American College of Physicians.

R. B. Robins, Camden, has been appointed

chairman of the State Committee of Counselors of the Lions Club. J. Harry Hayes, Little Rock, is a member of the committee.

R. J. Calcote, Little Rock, now stationed at the Naval Hospital, Fort Eustis, Virginia, has been promoted to captain.

W. W. Brown, Hardy, has moved to Echman, West Virginia.

Capt. T. L. Adair, Bald Knob, is now stationed overseas.

Capt. C. R. Williams, Morrilton, is now assigned to Army Air Field, Sioux Falls, South Dakota.

H. K. Carrington has been released from military service and has returned to practice at Magnolia.

O. J. T. Johnston and F. Q. Wyatt have been elected surgeons of the Batesville post of the American Legion.

J. B. Hesterly has been elected surgeon of the Prescott post of the American Legion.

Rufus Martin has been elected surgeon of the Warren post of the American Legion.

Vida M. Gordon has resigned as director of the Crippled Children's Division, Department of Public Welfare, and will enter private practice in Little Rock.

Max Hughes has been discharged from military service and has returned to practice at Walnut Ridge. Captain Hughes served two and one-half years in Africa, Sicily, France and Germany with the 2nd Armored Division and with the 3rd Auxiliary Surgical Group.

Lt. Col. A. M. Washburn, Little Rock, returned home on leave during August.

Dr. A. A. Blair, Fort Smith, spent a recent vacation in Colorado.

Capt. Charles P. Harris, Jonesboro, who has been in service in the European theater, has been home on leave and is now assigned to the 131st Evacuation Hospital at Camp Polk, Louisiana.

COMMUNIQUE

July 25, 1945.

To the Editor:

All of the boys in my outfit enjoyed reading my friend Senator Johnson's famous dissertation and it has made it easier for me to convince the doubting Thomases that we are a proud and resolute race down Arkansas way.

I should like also to make a formal request that The Journal of the Arkansas Medical Society be sent to me.

This is my second tour of duty in the Pacific. Am with the Marine Aviation branch. For the past three months I've been on a good big island that still has several thousand Japs fighting on it. They are a tough, resourceful lot; they haven't a chance but they keep on fighting like the devil.

Most of the troops on this isle are Aussies. Being the only American surgeon on the island keeps me fairly busy treating our Marines and the Naval personnel and Sea Bees from other outfits or ships based here. I recently operated on a Sea Bee who had a ruptured gastric ulcer on the lesser curvature of the stomach, draining into the omental bursa. Although he had lost 40 pounds in weight and hadn't taken any solid food in a week and had vomited blood three nights before perforation, he was trying to hold off going to a doctor because he was 47 years old and wanted to be sent home and discharged on an overage basis. He is now on his way home and has gained a lot of his weight back.

The monotony was broken for me one day last week, a little too excitingly. On a trip up to the ** our plane developed severe engine trouble amid about the worst flying weather I have encountered. In spite of all the pilot could do the plane gradually settled down with only one motor running and that was beginning to heat up. We jettisoned all movable gear aboard, and when the altitude was only 350 feet, we threw out all our personal gear, parachutes, radio gear, and extra life jackets before the pilot was able to maintain his flying altitude at just above the stalling speed. We then flew for an hour and 50 minutes through one thunder shower after another with the plane hovering just above the stalling speed and finally landed on the most beautiful tropical island about 45 minutes after they had decided we had made an open sea landing. Having made a couple of previous landings on the open sea, one of which cracked up, I was doggoned scared at the thought of

riding a Douglas transport in and then waiting for the boys to locate us in our life rafts on a rough sea and amid cloudy, rainy weather. It all ended well, however, and we have just about finished wrangling a new batch of clothes and flying gear from the quartermaster.

Here's hoping the Japs give up before I have have a chance to write you again.

Sincerely yours,
Gilbert O. Dean, Lt., M. C., USNR.

COMMUNIQUE

Salzburg, Austria,
July 12, 1945.

To the Editor:

Just received your June "Random Thots," service edition, and note we must request The Journal to be mailed to us, otherwise, it will not be accepted by Navy and Post Office. Please consider this my request that it be sent to me at address given above. If there is a regular form for request, please advise.

I enjoy reading The Journal and Random Thots very much and so far I haven't missed an issue with all my moving around.

The rumor is that we may get home sometime this year (or next).

Capt. Clifton Arnold is stationed near us in an armored division and Lt. J. W. Kennedy has just left this theater in an evacuation hospital seeking other worlds to conquer. They are the only two Arkansas men I have seen for sometime.

I was awarded the Bronze Star medal June 25th and our unit has been awarded five campaign stars. We are acting or serving as a station hospital in this town in the Austrian Alps.

Hope I may receive The Journal until I get back to the USA.

Sincerely,
Otis G. Hirst, Lt. Col., M. C.

COMMUNIQUE

July 11, 1945.

To the Editor:

Have intended writing you for sometime now, but we have moved and have a new APO so waited until I was settled before writing. We have moved out of our nice mountain home into one of the hottest places I have seen, including Arkansas. Had a nice movement by plane which is the only way to travel in this country. I am now quite a veteran on the plane rides, having gone about halfway around the world by plane

since leaving the USA. We have a nice set-up here and are taking care of only GI patients which is a great relief. Have been busy since the day we hit here, even before we were in our semi-permanent buildings using tents for patients. We are now in buildings, I mean the hospital, and we are housed for living in tents. I really prefer tents over here. We get to see movies from 2-3 times weekly: saw "A Tree Grows in Brooklyn" last night. Having read the book I enjoyed it very much though so much of the book had been deleted. Have not seen Johnston for quite a while. I understand he is sweating with a large number of points. As for myself, I will need quite a few more to get up to the critical level set for officers in this particular theater. Don't believe it will affect us too much because we are medical officers. August will be my 24th month overseas and I am damn ready to come home and have hopes something will break in the next six months to allow us old timers to come home. Referring to your note about Maynard, no one has seen all of ** unless they come to ** and been out on pack trails over the mountains behind a mule, especially in the monsoon season. We now have a new X-ray outfit and it is working fine. Our food out here is good and living conditions are satisfactory. We have been swimming in a nearby river when we learned that no cases of schistosomiasis had been seen here in this vicinity. Hope things are coming along nicely with you—yes, it would be nice to be demobilized via the camp in your city.

Hunter A. Causey, Capt., M. C.

COMMUNIQUE

July 10, 1945.

To the Editor:

Thanks a lot for Random Thots. Very refreshing and very informative. Reminds us that people in the Old Country are thinking about us.

Been seeing some rather interesting pathology—scrub typhus in ** and infectious hepatitis here. Also had a little excitement on a few occasions.

Everything you have heard about the ** is probably true, I have found. Except in areas occupied by U. S. troops, sanitation is deplorable. Civilian physicians here routinely treat patients for malaria before any operation of delivery. Don't even bother with smears. Lots of intestinal parasites, too.

I am in a Medical Clearing Company with

two hundred beds, so I am more fortunate than most of the poor doctors who have to waste years on mild dermatitides and nasopharyngitis. This fast convinces most of us that the AMA is not doing its best for the Service doctors.

This is my request: that I be mailed The Journal.

I am looking forward to thanking you personally over a cold beer, some time.

Charles R. Chestnutt, Capt., M. C.

COMMUNIQUE

July 19, 1945.

To the Editor:

I have neglected writing you to request that The Journal be continued at the above address because I have been hoping that your prediction about my coming home would come true, and I would have a stateside address to submit to you before the other request could be effected. I would miss not receiving The Journal and at least the June issue is still in the mails.

We have organized an exclusive society called "The Forgotten Four" and I am thinking of taking out my first citizenship papers. All newcomers try to console us by telling us how we will find conditions when we go, and those who get back write wishing they were back here but somehow it doesn't ring true.

Sincerely,

Fred H. Krock,
Comdr., M. C., USNR.

COMMUNIQUE

703 Market Street,
San Francisco, California,
July 25, 1945.

To the Editor:

Just a few lines to inform you of my change of address. I have enjoyed receiving The Journal and the regular editions of "Random Thots" during my months in the Southwest Pacific. Now that I am back in the States I want to continue receiving them. It means a lot to hear the latest dope about the home state and all the gang.

Sorry it's taken me so long to get around to writing you.

Yours truly,

Burch V. Raley,
Lt. Comdr., MC, USNR.

COMMUNIQUE

Camp Philadelphia,
Rheims, France,
July 7, 1945.

To the Editor:

After leaving Dachau, Germany, about May 16th we arrived at this assembly area after an eventful ride of three days on a French passenger train, which was even slower than the Katie. From here, of course, we do not know our destination, possibly the Pacific, either direct or indirect, the latter more likely.

I have had a long talk with Howard Armstrong who finished in my class. He was in the area around Dachau for some time. I made a trip down to the ** Evacuation Hospital to see Lt. Col. Hirst of Prescott but missed him by about one hour. The hospital was moving out to a rest camp near the Alps. I had heard of several other Arkansas men being in that area but was unable to contact them.

I have enjoyed getting The Journal and your Random Thots. Keeps us in touch with our friends and the medical progress at home. Write me whenever it is possible.

Yours,

Jack W. Kennedy, Lt., M. C.

COMMUNIQUE

July 16, 1945.

To the Editor:

I wish to thank you for your periodical news letters that invariably provide a welcome interlude and furnish nostalgic glimpses of colleagues and events in Arkansas. It is my firm conviction that no medical societies anywhere have more faithfully kept in touch with their overseas members than have the Pulaski County and the Arkansas State societies, a gesture that has constituted no inconsiderable contribution to the morale of those of us abroad.

My current assignment is that of Executive Officer of the ** General Hospital, the two thousand bed ** Unit. This is a topflight medical unit and has the distinction of being the first general hospital to be sent overseas, both in this and in the first World War. Prior to moving to **, it operated for two years in Melbourne, Australia.

Kindest personal regards,

Sincerely,

James M. Nisbett, Maj., M. C.

COMMUNIQUE

The New York Hospital,
525 East 68th Street,
New York 21, New York.

To the Editor:

My new address is above where I shall be happy to receive The Journal.

Lest you think I have assumed full civilian status, I shall explain my status. The Navy sends some of the regular (USN) medicos here for training in some of the specialties, e. g., EENT, urology and radiology. Yours truly was fortunate enough to get the assignment as assistant resident in radiology for the year July '45 to '46.

This is the best break I've had in my life. The hospital is the Cornell Medical Center and the amount of clinical material staggers the imagination!

We were lucky enough to find an apartment in Manhattan only one block from the hospital.

Jim is still in Manila and just recovered from a bout of infectious jaundice.

Give my regards to all there.

Yours,

George F. Stocker,
Lt. Comdr., M. C., USN.

COMMUNIQUE

July 12, 1945.

To the Editor:

Please keep sending me The Journal of the Arkansas Medical Society and change my address to APO **.

Enjoy your Random Thots very much and also tell Bill Stover his articles are morale lifter-uppers.

Ran into Lt. Col. Pate in Obserstein, Germany.

I'm commanding a clearing company now and we were in Germany long enough to get a couple of battle stars but didn't get battle casualties; just a few boys who thought the gun was empty.

You'll probably be getting another change of APO's from me before long.

See you after the war.

J. B. Elders, Capt., M. C.

BOOK REVIEWS

A Manual of Cardiology, by Thomas J. Dry, M. A., M. B., Ch.B., M. S., in Medicine. Assistant Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in Section on Cardiology, Mayo Clinic. 310

pages with 80 illustrations. Philadelphia and London: W. B. Saunders Company, 1943. Price \$3.

In a concise, yet comprehensive way, Dry has presented the problems of heart disease, emphasizing the manner in which signs and symptoms are produced. There is an effort to group similar functional disturbances and phenomena with their distinguishing points prominently discussed, in some instances, by diagrams.

Medical Gynecology, by James C. Janney, M. D., F. A. C. S., Assistant Professor of Gynecology, Boston University School of Medicine, Boston, Mass. 389 pages with 97 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$5.

The author draws on a wide experience to discuss the physiologic and pathologic causes of the patient's complaint. An interesting feature is the prominence given procedure to establish a definite diagnosis. Physical findings and treatments are separately discussed, a handy arrangement which facilitates the use of the book for reference. The discussions on the relations of social difficulties to gynecologic problems is excellent.

The Management of Obstetric Difficulties, by Paul Titus, M. D., Obstetrician and Gynecologist to the Saint Margaret Memorial Hospital, Secretary of the American Board of Obstetrics and Gynecology, etc. 426 illustrations. 8 color plates. Pp. 1,000. 3rd edition. Price \$10. Saint Louis: C. V. Mosby Company, 1945.

The third edition of the excellent volume has been carefully revised and new material added. The usage of penicillin and caudal analgesia are new while there have been revisions in the discussion of the toxemias of pregnancy, the RN factor X-ray pelvimetry. Dealing with obstetric emergencies only, these are presented in detail, offering a needed text to both the specialist and the general practitioner.

Military Medical Manuals. A Manual of Tropical Medicine: Prepared under the auspices of the Division of Medical Sciences of the National Research Council. 727 pages with 284 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$6.

This manual was not intended to supplant the standard texts on tropical medicine but rather to present the recent and accepted information on this subject concisely and make it readily available. While the purpose has in large measure been accomplished in a highly commendable manner, it should be borne in mind that it is difficult to divorce various aspects of tropical medicine without running the risk of over-emphasizing or under-emphasizing certain of these aspects and thus presenting a faulty picture of the problem involved. Public health and sanitation has hardly been given the importance it deserves. Insufficient consideration has been given water supply, latrine control, rat and fly control, and to a lesser extent, mosquito and malaria control (e. g. inactivation of malaria in natives by suppressive atabrine therapy). There is a tendency toward preoccupation with diagnosis without comparable attention to treatment and prevention. To illustrate, rabies is discussed without mention of cauterization or Pasteur treatment; penicillin is omitted in connection with spirochetal, as well as certain other diseases; blood plasma is not mentioned with scrub typhus, cholera and certain other diseases; the value of iodides in moniliasis is not mentioned, and so forth. The chapters on virus diseases and on rickettsial diseases deserve special favorable mention. The chapter on arthropods has genuine practical value. The chapter on laboratory methods will serve as a useful reminder to the Army and Navy physician while in the field. The chapter on mycotic diseases and helminthic diseases are of high order

and rather thorough but the special interest results in many pages being devoted to such conditions as coccidiomycosis, blastomycosis, favus and diphyllotrichiasis which are found largely in temperate climates while the very important subject of tuberculosis in the tropics is omitted. The illustrations, photographs, diagrams and tables are superbly presented. It is believed that there is no other single volume that contains as much recent, authoritative and concise information on tropical medicine. This unique position will make this manual almost invaluable to many a physician in the armed forces and a worthwhile addition to the library of those in civilian life interested in the subject.—Gaston A. Hebert, Lt. Comdr., MC, USNR.

A Textbook of Ophthalmology, by Sanford R. Gifford, M. A., M. D., F. A. C. S., formerly Professor of Ophthalmology, Northwestern University Medical School, Chicago; formerly Attending Ophthalmologist, Passavant Memorial and Cook County Hospitals. Third edition, revised. 457 pages with 215 illustrations and 13 color plates. Philadelphia and London: W. B. Saunders Company, 1945. Price \$4.

This excellent textbook has been carefully revised with consideration of the following conditions added: contact lenses, epidemic keratoconjunctivitis and cyclodiathermy. This book is recommended for the use of general practitioners and students.

Clinical Heart Disease: By Samuel A. Levine, M.D., F.A.C.P., Assistant Professor of Medicine, Harvard Medical School; Physician, the Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston. Third Edition, Revised & Reset. 462 pages with 157 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$6.00.

This is an exceptionally good book on the heart, discussing, as the author states: "the common problems of heart disease, constantly bearing in mind the viewpoint of the general practitioner." Properly, the author places emphasis upon clinical findings and the differential diagnosis is clearly presented. Each chapter is a complete one making the book especially valuable as a reference text.

Peripheral Nerve Injuries, by Webb Haymaker, Capt., M. C., A. U. S., Neuropathologist, The Army Institute of Pathology, Washington, D. C. (on leave of absence from the University of California, San Francisco and Berkeley); and Barnes Woodhall, Maj., M. C., A. U. S., Chief, Neurosurgical Section, Walter Reed General Hospital, Washington, D. C. (on leave of absence from Duke University, Durham, North Carolina). 227 pages with 225 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$4.50.

This is an excellent reference manual that should be included in the office library of every practitioner whose responsibilities include the care and treatment of traumatic lesions of the peripheral nervous system. The authors have compiled a simplified text covering the anatomy and the traumatic lesions of the segmental and peripheral nerves. This text of 216 pages includes 225 illustrations of clarified anatomy, photographic evidence of trauma, and practical methods of examination and localization of all manner of nerve injuries. The chapter pertaining to the analysis of the movements tested in a neurological examination offers a well-illustrated reference for the ready localization of peripheral nerve injuries and subsequent muscular impairments. In this book, the absence of 19th Century illustrations speaks for the advancement of medicine during the past three years.

The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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Vol. XLII LITTLE ROCK, ARKANSAS, OCTOBER, 1945 No. 5

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The JOURNAL

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LITTLE ROCK, ARKANSAS, OCTOBER, 1945

No. 5

WAR NEUROSES AMONG RETURNING SOLDIERS *

A. C. KOLB, M. D.
Little Rock

When considering the subject of "War Neuroses Among Returning Soldiers," we are not dealing with a new type of nervous condition, but with the subject of psychoneuroses with which we have been dealing for years. It is dressed up with a new name. During the first World War it was called "shell shock." If there is any difference, it is in the intensification of the symptomatology. The stress and strain of military life, whether in combat zones or in encampments, is far greater than in civilian life. War conditions bring into the open the extreme prevalence of functional nervous disorders which are society's most common illness. Every individual inducted into the armed forces must pass through a transition of adjustment from civilian life to that of military life. This involves new experiences in the matter of becoming adjusted to mass regimentation and orientation and an entirely new manner of living; entirely different from what he has been accustomed throughout his previous life. Every member of the armed forces is necessarily a separate entity, from the standpoint of his personality. No two of these individuals will react the same, in relationship to their new environments and situations.

On account of the lack of necessary number of psychiatrists at the induction centers, and also for lack of sufficient time to study more carefully each registrant from the psychiatric standpoint, many individuals are inducted into the armed forces who possess an unstable personality background which will come to the surface in the form of a neurosis or psychosis when subjected to unusual demands in combat zones, or other phases of military life. Even if the psychiatrists at the induction centers had all the

time necessary for a most careful study of each inductee, there would still be a large neuropsychiatric casualty list from the zones of military action. It is impossible to screen out every potential casualty of this type. Probably one-half or two-thirds of those who break down in the service are predisposed. Even among those members of the armed forces who possess the strongest possible resistance to the development of neuropsychiatric disorders, we may expect an increasing number of these cases to develop as the capacity to withstand shock and stress over a prolonged period gradually wears out. Thus the most stable soldier may reach his breaking point.

Since November 18, 1940, approximately 14,000,000 men have been examined for the armed forces at the various induction centers. Of this number 4,250,000 have been rejected and approximately 35 per cent of those rejectees were for neuropsychiatric reasons. This figure approaches a 1 to 3 ratio and brings to our attention in an alarming manner the magnitude of this problem in the military field, as well as in the civilian field. It is no wonder that we find 60 per cent of all hospital beds throughout the United States occupied by mental and nervous patients.

Psychoneurosis must not be confused with a psychosis. A psychoneurosis is a partial reaction. The psychoneurotic maintains contact with reality. He retains his herd sense. He retains insight. He knows he is sick and wants to get well but, subconsciously, his symptomatology serves a useful purpose. The symptoms enable the patient to escape intolerable tensions and situations. He uses these symptoms to his advantage. A psychosis is a total reaction. The psychotic patient loses contact with reality. He loses his herd sense. He loses insight and does not realize he is sick.

Ebaugh classifies the various psychoneurotic reactions as follows: (1) Anxiety State, which always follows a period of strain and tension; (2) Hysterical Reaction, which may simulate nearly any ailment through an emotionally produced disturbance in, or loss of, body or mental func-

* Read before the First Councilor District Medical Society, Jonesboro, May 15, 1945.

tioning; (3) Hypochondriasis, characterized by constant complaints of body difficulties and disease in the absence of an adequate objective basis for them; (4) Obsessive, Compulsive States with development of tension, increasing and accompanied by confusion and inefficiency, if the patient's urges and thoughts cannot be complied with; (5) Psychosomatic Reactions.

We know that a descriptive classification, as just given, is not satisfactory. A classification based on etiology would be preferable but, up to the present time, we have not penetrated the "forest" deep enough to make such a classification. It is a generally accepted proposition that the foregoing listed symptoms are, to a large degree, brought about by a maladjustment of the patient to his social environment and that the emotions arising out of his conflicts bring about the symptoms. There is much clinical evidence to support this psychogenic theory. In our work with the Alcoholics Anonymous organization over the past four years, this has been amply demonstrated. However, we must not overlook the chemogenic or endocrine factors and also the genogenic or hereditary factor.

In the anxiety states, overwhelming anxiety and fear are dominant and are strikingly expressed in such symptoms as cardiac and vasomotor reactions. The heart may be racing, irregular and palpitating. Other symptoms may be nausea, vomiting, vertigo, difficulty in walking and also choking sensations. There are also the special fears—a long list—derived from Greek root words, such as: Claustrophobia, or fear of closed places; agrophobia, or fear of wide open places; mysophobia, or fear of dirt and germs. The list is practically endless. The purpose of these phobias is to keep out of consciousness submerged complexes which the personality of the patient cannot face.

In the hysterical reaction type, unresolved emotional conflicts are converted into clear-cut somatic symptoms. This represents an escape from a situation no longer tolerable to the personality of the patient. These symptoms may be characterized by amnesia, blindness, deafness, paralysis, etc. Any unresolved emotional conflict serves as a psychic irritant which will later be converted into physical symptoms.

In the hypochondriac type, we find the patient always complaining of a multiplicity of complaints without any somatic basis for same.

In the obsessive, compulsive states, the symptomatology is characterized by certain peculiar patterns of action, such as touching certain objects, repeatedly getting out of bed to re-ex-

amine the door to see if it has been locked, or to examine the gas stove to see if gas has been turned off. Some feel the compulsion to do some untoward act, even going so far as to ask the jailer to lock them up to prevent the act.

Psychomatic reactions are like the psychoneuroses insofar as they are often part disturbances of the personality. They have different symptoms and as a rule are of much longer duration and, in most instances, there are known and demonstrable pathologic bases. The patient with an anxiety neurosis, in contrast, may have symptoms for years without any demonstrable pathology.

The following conditions may be considered as belonging to the psychosomatic reaction group—such as certain types of gastro-intestinal diseases, peptic ulcers, mucous colitis, hypermobility, and hyperacidity. Allergic diseases, such as bronchial asthma, certain types of dermatitis, angioneurotic oedema, urticaria, hay fever and certain cardio-vascular conditions, such as the so-called essential hypertension. Studies have been made, from the psychoanalytic standpoint, in a series of patients suffering from essential hypertension, and it was found that the basic problem of these patients lay in their attempts at handling their dependence. This factor had its origin in an early relationship to a dominating parent and led to the formation of a pattern of general behavior to which the patient adheres thereafter. It was this submission to authority that the patient struggles against with rebellion and hostility. The conflict centers about the expression or repression of this hostility.

It is now definitely known that 20 per cent of the cases of rheumatoid arthritis is due to psychoneurotic factors. Also, emotional factors play a considerable part in the epilepsies, especially in the nocturnal type. Much more could be written about the part emotional factors play in psychosomatic medicine but the foregoing is sufficient for the purpose of this paper.

The most difficult diagnostic problem in dealing with these cases is to differentiate psychoneurosis from constitutional psychopathic states. The psychopathic may present many neurotic symptoms. His principal difficulty lies, symptomatically, in the field of human relationships and in poor conscience values; inability to adjust to ordinary rules of community conduct; irrationality; impulsiveness; alcoholism; criminalism; explosive emotional outbursts, and frequent absence without leave.

From the standpoint of prognosis in the cases

of war neuroses, according to Strecker, the following factors are significant:

1. The more stable the pre-military personality, the better the outlook;
2. The more severe and continuous the combat experiences before the break occurs, the better the prognosis;
3. The more marked the exhaustion, deprivation and in general the somatic factors, the better the prognosis;
4. The longer the time lapsing between the occurrence of the casualty and the initial aid, the worse the prognosis;
5. Beyond a certain area, the farther the casualty is removed from the zone of conflict, the poorer the prognosis;
6. The prognosis is definitely more favorable in anxiety neurosis and conversion hysteria than in neurasthenic, hypochondriacal states and obsessive and compulsive reactions. This is true in civilian practice.

As to therapy, one of the greatest drawbacks to any successful type of treatment is the attitude of doctors in dealing with these patients. Many patients show great concern at being classified as malingerers and cowards. In civilian practice, the average physician does not relish treating these patients. The patient is told to forget his troubles, etc., and is given some prescription—ofttimes a placebo—and sent on his way to make the rounds of all physicians in his area and finally lands in the hands of the cults. In military casualty cases, these patients are treated close up to the combat zones. Treatment measures are simple—plenty of good food, rest, modified narcosis usually with sodium amytal. By suggestion, while the patient is in the twilight zone of consciousness, the patient is made to relive his battle experiences. Simple suggestions, reassuring psychotherapy is always needed. Most patients respond remarkably. In many cases, which do not respond to treatment sufficiently to be returned to combat service, may be shifted to other branches of the service other than combat service and function well.

It must be remembered that the cases we civilian physicians will see in these soldiers returned to civilian life will be chronic cases and will be more intractable to treatment. In all probability they will be cared for by the Veterans Administration Facilities. The civilian practitioners will see other types of mental cases among the returned soldiers. Some of these cases, no doubt, may develop after the soldier

has returned to civilian life. The principal type of mental diseases of this nature, in all probability, will be schizophrenia and manic depressive psychoses.

Too much has already been written by both lay and medical writers relative to the reversion of the returned soldier to civilian life. Because of this, the average person has been led to believe that every returned soldier will not be the same as he was when he left for service; that he must be regarded as a mental case until he proves himself to be mentally normal. Nothing could be farther from the truth: Certainly he will be different from what he was when he went away. He has gone through long periods of training and discipline. He has become accustomed to regimentation and mass living. He appreciates his country and his government. He will be a far better citizen upon his return to civilian life. All he wants is to get settled down to constructive work again and to do a good job of it. The writer has questioned returned soldiers from overseas—men who have fought in combat; men who have been prisoners of war; men who have been in tough places. All give the same answer in regard to their return to civilian life. It is the opinion of the writer that these men will be a mighty force in building a greater and better nation.

RESOLUTION

WHEREAS Pulaski County Medical Society instructed its Procurement and Assignment Committee to report all doctors of military age available for service and,

WHEREAS all doctors of military age not rejected for physical disability or deferred by the Government for special service were, with two exceptions, taken from the county,

WHEREAS Pulaski County Population in 1941 was 126,796 and in 1945 175,000, an increase of 48,204; in Pulaski County there were 170 doctors in 1941 and 1945 there were 110, with approximately 25 being past the age of 60, 85 being in military service, a decrease of 60 in the county,

BE IT RESOLVED that Pulaski County Medical Society, since hostilities have ceased, instruct the Procurement and Assignment Committee to recommend the discharge of any of its members who make application for release from military service.

Edgar J. Easley, M. D., Secretary
Pulaski County Medical Society.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society
C. T. CHAMBERLAIN, M. D. Chairman
Fort Smith

THE TREATMENT OF RHEUMATIC FEVER PART II

"Penicillin: Penicillin is not beneficial in the treatment of rheumatic fever. It is harmful when continued over a long period of time. (Watson and Swift, 1944) (Foster et al., 1944). In a series of 168 consecutive admissions to this hospital, 13 patients had been treated with penicillin without demonstrable benefit.

"Vitamins: Since the food intake per patient averages 3250 calories daily and since a varied diet is made available, supplementary vitamins have not been used routinely. Where a patient has been seriously ill and the dietary intake has been deficient, vitamins are added. Vitamin C has not caused a more rapid convalescence as indicated by a leveling of the temperature curve and the sedimentation rate. In a short series of cases of rheumatic purpuras, vitamin P (Hesperidin) has not corrected nor prevented the recurrent attacks of petechial hemorrhages (Montgomery, 1944, 1945). Vitamin K and calcium in large dosage have likewise been ineffective in correcting the increased capillary fragility common to the rheumatic state.

"Iron: Iron is of value in correcting the anemias secondary to the active rheumatic state. Ferrous sulphate Gr. 6 t.i.d. is adequate dosage.

"Fever Therapy: Fever therapy has not been evaluated. It has been shown that chorea clears up rapidly with fever therapy. (Sutton, 1931; Sutton and Dodge, 1933 and 1936.) Sutton's recent (Sutton, 1938) comparative study of treated and untreated chorea patients has suggested that this form of therapy may have a beneficial effect on the severity of subsequent cardiac lesions.

"X-ray Therapy: X-ray therapy has been advocated in the treatment of the active phase of carditis. (Levy and Golden, 1926; 1927; 1928.) Upon the basis of their work, 201 cases of active rheumatic fever cases were selected. The criteria for selection were that each case had been active with one or more recurrences for six consecutive months and had not reached the quiescent state upon usual therapy. The case histories, physical findings and laboratory procedures were analyzed before x-ray therapy was initiated and again six weeks after the series of x-ray treatments had

been completed. The roentgenologist did not know the state of activity of the disease in any case and administered 100 R through the myocardium weekly for five weeks to 71 patients, the same dosage through the myocardium and over the cervical sympathetic ganglia to 63 patients, and no treatment to 67 patients. Thus 71 patients received treatment of 500 R to the myocardium; 63 received the same dosage to the myocardium and to the cervical sympathetic ganglia and 67 received no treatment. In the last group, the exposed field was blacked out by a lead filter. Of the 71 patients who received treatment to the myocardium 49.4% had no effect; 47.2% showed slight improvement and 1.4% marked improvement. Of the 63 patients who received treatment to the myocardium and cervical sympathetic ganglia 65% showed no effect, while 33.3% showed slight improvement and 1.6% showed marked improvement. Of the 67 who received no treatment except psychic influences 59.7% showed no effect, while 29.8% showed slight improvement, 10.4% showed marked improvement. From this study it is believed that x-ray therapy had no therapeutic effect. There may have been a slight psychogenic effect in that the patient thought something was being done for him.

"Foci of Infection: Removal of foci of infection is not done in the active phase of the disease. The removal of foci of infection would seem to be a logical procedure in the quiescent stage except for two factors: First, the difficulty in determining the point at which the disease is quiescent even though all clinical and laboratory criteria for such have been met, and second, the frequency with which recurrences of the active phase have been noted following tonsillectomy or dental surgery. A subsequent report from this Unit will give statistical proof of the undesirability of removing teeth or tonsils until at least six months have elapsed after the patient has been thought to be in the quiescent state.

"Blood Plasma: Blood plasma has been administered to 9 patients. There was definite evidence of an increase in the rheumatic activity in 7 of the 9 patients. Therefore, it is believed that blood plasma should not be used in the active phase of rheumatic fever.

"Serums and Vaccines: Serums and vaccines have proven disappointing in the past. (Hitchcock, McEwen & Swift, 1930) (Wilson, 1930) (Coburn, 1931 and 1935). Therefore they have not been used or further investigated.

"Treatment in the Inactive or Quiescent Stage: The treatment in the quiescent stage differs

from that planned for the active stage largely in degree. The periods of rest are shortened. The nursing care is very little except for the care taken to record the daily temperature curve and the supervision of the reconditioning program.

"Climatotherapy: The exposure of the rheumatic fever patient to a warm dry climate and regulated heliotherapy is of some general benefit. It is believed, but not yet proven, that the hemolytic streptococcus dies out in this climate. The incidence of rheumatic fever in Naval training camps in the temperate zone has been definitely greater than in the training camps in the subtropical climate. It is our experience that a warm dry climate has a beneficial effect on the disease. Exposure to sunshine, however, must be gradual and carefully regulated.

"Physiotherapy: Physiotherapy is definitely harmful in the transudative stage of the rheumatic polyarthritis. It is of value in the older age group when there is residual muscle weakness, jelling, arthralgia, fibrositis and bursitis.

"Avoidance of Infection: Since there is a direct relationship between the hemolytic streptococcal throat infection and rheumatic fever in susceptible individuals, every effort should be made to protect those who may be susceptible or are known to be susceptible. With the onset of an acute upper respiratory infection bed rest is essential. Isolation technique should be practiced. Various procedures such as the oiling of floors and blankets, sweeping with sawdust and pushbroom, are done to minimize dust dissemination and have proved beneficial in preventing spread of respiratory infections. These procedures have been followed here.

"Salicylates apparently do not protect a susceptible individual from recurrences nor are they of any benefit in the treatment of recurrences, except for their antipyretic and analgesic effect. The administration of sulfanilamide, once a hemolytic streptococcal infection has started, has not prevented rheumatic recurrences. (Coburn, 1944.) The daily administration of sulfathiazole or sulfadiazine throughout the year will reduce the incidence of streptococcal infection 80 per cent (Coburn, 1944). A well controlled prophylaxis program is necessary to establish conclusively the advantages and disadvantages of such a procedure which may involve serious hazards.

"The use of penicillin in a prophylactic program, especially penicillin in pastules for the prevention of the streptococcal infections, is now feasible. Penicillin therapy for the acute hemolytic streptococcal infections of the throat does

not tend to influence the rate of occurrence or recrudescence of rheumatic fever.

"Educational Program: Each patient early in his illness fills out a questionnaire to ascertain his chief interests. An educational officer then supervises diversional reading and as the patient improves, the program is so planned as to lead to promotion in rate or to graduation with certification, in grade school, high school, or college work.

"Reconditioning: The purpose of this program is three-fold. First, to increase the blood circulation in the vital organs, and to promote oxygenation of the tissues; second to prevent the development of muscle weakness, and third to maintain interest and morale. The reconditioning program is begun as soon as the patient is well enough to cooperate in supervised deep breathing exercises. The Goldthwaite breathing exercises are used. The reconditioning program is under the direct supervision of the ward physician and carried out by an athletic specialist. The athletic specialist is a college graduate with a degree in physical education. The patients are divided into five groups, Group 5—absolute bed patients; Group 4—bed patients allowed to stand at bedside; Group 3—Patients sufficiently recovered to walk on the level; Group 2—Patients doing four hours light work daily; and Group 1—Patients capable of doing 6-8 hours hard work out of doors daily. Group 5 received only Goldthwaite type breathing exercise in bed. Group 4 does the breathing exercises plus resistive arm and leg exercises. Group 3 performs the above exercises with moderate calisthenics. Group 2 does fifteen minutes of body building exercises and mild recreational games. Group 1 not only performs the reconditioning calisthenics but also participates in more strenuous recreational games. All five groups go through the program for 15 to 30 minutes twice daily. Promotion from Group 5 to Group 1 is made by the physician after a weekly physical examination and the results of the 12 inch or 20 inch step test are known.

"Rehabilitation begins when it is known that the patient cannot be returned to duty status. When damage to cardiac structures is of such degree that there is enlargement, or when diastolic murmurs with detectable limitation of the cardiac reserve are observed, the patient's occupational and social status are reviewed. In the light of this knowledge, and of the knowledge of the patient's aptitudes as learned during the months of the educational and occupational convalescent programs, an attempt is made to

train him in an occupation suitable to his ability to perform useful work.

"As a result of this program of therapy, to date 47.6% of the case load has been returned to full duty; 34.2% returned to duty in a warm dry climate and 18.2% rehabilitated in part and discharged. The recurrence rate after return to duty (Bingham, 1945) is 2.4% approximately."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

RESOLUTION

WHEREAS the quota of physicians furnished the armed services has created a shortage of doctors in Pulaski County, resulting in inadequate medical services to the civilian population and over work on the part of many of the older doctors that may result in serious effect on their health,

WHEREAS Pulaski County population in 1941 was 126,796 and in 1945 was 175,000, an increase of 48,204; in Pulaski County, there were 170 doctors in 1941, and in 1945 there are 110 with approximately 25 being past the age of sixty, 85 being in the military service, a decrease of 60 in the county,

BE IT RESOLVED that Pulaski County Medical Society ask our representatives in the Congress to use their influence in securing legislative provision for the speedy return of doctors to this and other communities in similar condition.

Edgar J. Easley, M. D., Secretary
Pulaski County Medical Society.

COMMUNIQUE

To the Editor:

I left my last station, Del Rio, on August 28th to come up to the Regional and Convalescent Hospital, San Antonio District, AAF, Personnel Distribution Command, San Antonio. I want to express my thanks for the many letters, publications, etc., which I have received from your office. It has meant much to me to keep up with the fellows from Arkansas. I envy those who did not have to spend the duration in Texas.

Sincerely,
James M. Kolb, Major, M. C.

FOR SALE—Used Kelly-Koett 100/100 X-ray control and transformer with motor driven table and all accessories. Write Box 19, The Journal.

PROGRESSIVE MUSCULAR DYSTROPHY AND PROSTIGMINE METHYL SULFATE

M. L. SKALLER, M. D.
Blytheville

This is a case report of a 36-year-old white male first seen by me in February 1943. This man was brought to my office by two other men each holding him under one shoulder and dragging his legs behind him. His story was as follows:

He had been at the Mayo Clinic at Rochester at the same time that Lou Gehrig was there. The diagnosis that he was given was progressive muscular dystrophy; he was told that he had between six months and one year to live.

Physical Examination: The patient showed marked atrophy of both lower extremities, upper extremities and back muscles. He was completely unable to raise his arms and could no longer feed himself. All laboratory work was normal.

He was started on prostigmine methyl sulfate 1:2000, 1cc. given intramuscularly in alternate hips twice a week. He took these injections for a period of six months with no rest period. At the end of six months time he was able to walk, feed himself and carry on a fairly normal life. Two months later he left for a Northern city where he obtained a job on the police force, which he has kept ever since.

In July of 1945, or two years after I first saw him, I had the pleasure to re-examine him. He now has gained 65 pounds in weight since his treatment was begun so that today he weighs 167½ pounds. All laboratory work is normal. He tells me that he feels fine, works every day, and his work requires that he go up and down steps three and four times daily.

The conclusion to be drawn is that prostigmine methyl sulfate appears definitely to benefit muscular dystrophy.

COMING MEDICAL MEETINGS

Kansas City Southwest Clinical Society, Kansas City, October 1st and 2nd.

Fifth Councilor District Medical Society, Camden, October 16th.

Southern Medical Association, Cincinnati, November 12th-15th.

House of Delegates, American Medical Association, Chicago, December 3rd-6th.

International College of Surgeons, Washington, D. C., December 7th and 8th.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE tuberculin test, on which much of the early work in tuberculosis was based, came into serious question when significant numbers of tuberculin negative reactors were found to have pulmonary calcification suggestive of tuberculous infection.

The evidence now accumulating indicates that calcification is a non-specific response of lung tissue to invasion, and may be called forth not only by the tubercle bacillus but by *Histoplasma capsulatum*, *Coccidioides immitis*, and perhaps other organisms. Tuberculin testing, therefore, takes again its rightful place as a biological test for the presence of the tubercle bacillus, while chest X-rays complement but do not supplant it as a diagnostic procedure.

NONTUBERCULOUS PULMONARY CALCIFICATION AND SENSITIVITY TO HISTOPLASMIN

In different parts of the country, there are marked variations in the frequency of pulmonary calcification observed in roentgenograms of the chest. Recent studies have shown that the prevalence of calcified lesions varies from 6 per cent in Oregon to 28 per cent in Kentucky. An area of high prevalence occurs in the East Central States, with a frequency generally lower in surrounding regions. Roentgenographic findings have been the basis for rejecting appreciable numbers of persons from the armed services.

Although pulmonary calcification is usually considered evidence of healed tuberculosis, there are strong indications that this disease is not the only important cause of such lesions. The correlation between the prevalence of tuberculosis and the frequency of calcification is not close, and a number of reports have shown that in the area of high rates of calcification, a large proportion of the persons with such lesions have negative tuberculin reactions. It has been shown repeatedly that reversion from tuberculin positive to negative takes place very slowly, and that calcifications exist in tuberculin negative children. These facts have led to a search for nontuberculous origins of the lesions, especially among the fungi. Ascariasis,

as a cause of pulmonary calcification in man, has not been proved of significance. In the Southwest, coccidioidomycosis accounts for some calcification. Because the endemic area of clinical histoplasmosis corresponds with the area of high prevalence of pulmonary calcification in tuberculin negative reactors, a possible association has been sought.

The question of tuberculin negative pulmonary calcification has been studied recently in an extensive investigation on tuberculosis in student nurses, which is being conducted cooperatively by the National Tuberculosis Association, the U. S. Public Health Service, and a large number of specialists throughout the country. About 10,000 student nurses are under close observation, and are given tuberculin tests and 14"x17" chest X-rays at six-month intervals. The schools are 65 in number, and are located in nine widely distributed metropolitan centers. Results from the study bring out clearly the regional differences in the frequency of pulmonary calcification, as well as the fact that especially in the East Central part of the country, the majority of nurses with calcification have negative tuberculin reactions.

In order to investigate the possibility that infection with *Histoplasma capsulatum* may be a cause of pulmonary calcification, a large number of nurses were given intradermal histoplasmin tests. Preliminary data are based on records of these tests, roentgenograms, and tuber-

culin tests of 3,105 student nurses in four centers. Results of this work indicate that (a) infection with histoplasma, or an immunologically related organism, is common in widespread localities, and that (b) it is probably the principal nontuberculous cause of pulmonary calcification. These conclusions are based on the assumption that skin sensitivity to the histoplasmin used in this study is indicative of infection with Histoplasma.

All skin tests were performed and read by one person, and all films were interpreted by one experienced roentgenologist. Film findings are limited to a report as to the presence or absence of shadows characteristic of calcification in the lung parenchyma or lymph nodes. The interpretation was recorded without knowledge of the tuberculin reaction and prior to the testing with histoplasmin.

Most of the nurses tested were given tuberculin and histoplasmin at the same time, and measurements of both erythema and induration were recorded at 48 hours. The reactions to the two tests were similar and could not be distinguished by their appearance.

Of the 3,105 nurses studied, 711 (22.9 per cent) showed a positive reaction and 61 (2.0 per cent) a doubtful reaction to histoplasmin. Great differences were found in the percentage of nurses reacting to histoplasmin in the various cities. In Minneapolis and St. Paul, the percentage of definite or doubtful reactions was 6.3; in Philadelphia, 12.6; in Detroit, 14.4; in Kansas City, Kansas, 54.0; and in Kansas City, Missouri, 65.8.

The most striking findings in the investigation are derived from the study of the relation, in individual nurses, between pulmonary calcification and reaction to histoplasmin and tuberculin tests.

About one-fifth (21.4 per cent) of the total group of 294 nurses with calcification had a positive tuberculin. Of the remaining four-fifths (231), who had a negative tuberculin, 206 had a positive or doubtful histoplasmin reaction. Only 25 nurses (8.5 per cent of the 294 with calcification) had a negative reaction to both tests. From these findings it may be seen that a high proportion of the group having pulmonary calcification react to histoplasmin, tuberculin, or both (91.5 per cent), and that many more react to histoplasmin than tuberculin.

Of the nurses who react only to the latter, 10.4 per cent show pulmonary calcification, while of those reacting only to histoplasmin, 31.1

per cent show calcification. A very low rate of pulmonary calcification (1.2 per cent) is found among the large group of 2,141 nurses who are negative to both tests.

Perhaps it is premature at the present time to discuss the significance of the general findings presented in this paper. If the histoplasmin test is correctly interpreted, however, a number of implications become apparent. Histoplasmosis, in a mild, perhaps subclinical form, may be a common infection in the East Central States, and the number of persons attacked may total several million. The epidemiological evidence indicates that a high proportion of the pulmonary calcification observed in individuals living in these States may be due to infection with Histoplasma or a related organism, and not to tuberculosis.

COMMUNIQUE

In the Ryukyus
August 14, 1945.

To the Editor:

Your July edition of "Random Thots" and my 1945 membership card arrived a few days ago and, as always, was much appreciated. It is always interesting to hear the whereabouts of the fellows we know. On this tour of duty, I've met no M. C.'s that I had previously known. I've met several officers of other branches of service whom I had known while in the Aleutians.

The war news seems to have finally reached the climax and now we are waiting for word of the final signing of the papers by the Japs. The atomic bomb combined with Russia's entry into the war seems to be too much even for Japan's fanatical war lords.

Now we will all start "sweating out" that return to the States and a change of uniform back to civies.

I want to thank you for your interesting and regular letters. The members of the Arkansas Medical Society have done a good job at home and with the armed forces and we look forward to the years of work and fellowship as members of the Society.

Sincerely,

R. F. Hyatt, Capt., M. C.

0-381088

386th Med. Coll. Co.,

APO No. 331, San Francisco.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

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W. R. BROOKSHER, M. D., Editor
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EDITORIALS

VOCATIONAL REHABILITATION

The State Board of Vocational Education has embarked upon an expanded program of restoration of the physically handicapped into wage-earners. The program, as inaugurated, will seek out these unfortunate citizens in the effort to eradicate, or materially remedy, their disabilities in order that they may return to work and earn a livelihood. The family physician will be the first medical link in the process and he will be asked for a complete medical examination of the handicapped person by a field agent of the department. This examination is complete and includes urinalysis, hemoglobin estimation (Talquist or similar method) and serological blood study. The Arkansas State Board of Health will perform the necessary serological test. The prescribed fee for this examination is five dollars. The medical examination is an important part of the department's study of the individual case and it is hoped that Arkansas physicians will fully cooperate with the department in achieving success

in its program. Should the medical examination indicate the possibility of termination or improvement in the disability by treatment, such treatment will be furnished at government expense only if the individual is economically unable to provide himself with such treatment. It is fully understood that government funds will be available for treatment only to the medically indigent. A fee schedule is in preparation for application to various treatment procedures. Serving the department in a professional capacity is an advisory committee of physicians from the Society. The program will be presented in more detail in subsequent issues of The Journal.

VICTORY

America rejoices in its supreme hour. Japanese militarism, crushed and humbled, has come to bitter submission. A nation of free men and women has arisen to preserve their liberties, ruthlessly challenged by tyrants and aggressors. As free men, we propose to remain free; we have destroyed tyranny. The enforcement of terms must be strict lest these evil doctrines again rise in this world. The tremendous task of making, and maintaining, a just peace now confronts us. May we prove worthy of the destiny which now appears!

EDITORIAL COMMENT

THE EMERGENCY MEDICAL CARE OF ARMY PERSONNEL

Procedure to Be Followed by Civilian Physicians and Hospitals

Army personnel spend various lengths of time on leave or furlough at their respective homes, some of whom no doubt will require medical attention during this period. When possible, such personnel should be referred to the nearest federal medical installation for care and treatment. If the condition of the patient is such that immediate treatment or hospitalization is necessary, civilian medical attendance is authorized at public expense under existing regulations. This does not apply to Army personnel who are absent without authorized leave or to those who obtain elective medical treatment in civilian hospitals or by civilian physicians.

In case of emergency treatment or hospitali-

zation, the individual or his attending physician should notify the appropriate service command surgeon as determined by the accompanying tabulation and give the following information: Full name.

Military rank.

Army serial number.

Military address, including organization and home station (orders in possession of military personnel will give this information).

Diagnosis.

Estimated duration of treatment and approximate date when patient's condition will permit transfer to an Army hospital if hospitalization is required.

All bills for medical treatment or hospitalization will be submitted to the appropriate service command surgeon and must show the soldier's name, rank, serial number, organization and home station.

Arkansas physicians and hospitals should address: Service Command Surgeon, Headquarters Eighth Service Command, Santa Fe Building, Dallas 2, Texas.

EDITORIAL COMMENT

PENICILLIN BY PRESCRIPTION ONLY

R. B. ROBINS, M. D.
Camden, Arkansas

The laity has read a great deal in the press about penicillin and its marvelous qualities as a drug. The drug will soon be on the market in oral form and there will no doubt be a great tendency for people to resort to self-medication with all its possible serious consequences. This will be particularly true in the self-treatment of venereal disease, especially gonorrhea. The result will be that many individuals will attain half-cures and will be a public menace as far as the spread of the disease is concerned.

In order to protect the public health there should be legal restrictions on the sale of penicillin for use internally. The following ordinance has been introduced in the city of Camden:

An Ordinance

"To regulate the sale and possession of antibiotic drugs in the interest of public health.

"Section 1: Penicillin and the sulfonamide drugs, their compounds or derivatives, shall not be sold at retail, dispensed or given away in the City of Camden to any person except on the prescription of a licensed Physician, Dentist, or Veterinarian unless specifically exempted from the provisions of this section.

Section 2: Physicians, Dentists, or Veterinarians who do their own dispensing shall not dispense any of these drugs without affixing to the container in which the drug is dispensed the name of the patient, date dispensed, directions for its use and the name of the dispenser.

"Section 3: This regulation shall not apply to any of these drugs sold at retail, dispensed or given away when such drug is prepared in such form as can only be used for external purposes.

"Section 4: Any person, firm, or corporation violating any of these regulations shall be deemed guilty of a misdemeanor and upon conviction shall be fined in a sum of not less than \$10.00 nor more than \$25.00 for the first offense, and for any subsequent offense he shall be fined in a sum not less than \$25.00 nor more than \$100.00."

The city of New York and the state of Pennsylvania have already adopted legal measures preventing the sale of penicillin except by prescription.

This is a matter that should receive the attention of the Committee on Legislation of the Arkansas Medical Society with a view to some action at the next meeting of the Arkansas Legislature.

1946 ANNUAL SESSION

Tentative dates of April 15th, 16th and 17th have been set for the 1946 annual session of the Society to be held in Little Rock. This will be the first full session of the Society since 1941 and, with the return of all of our service members hoped, promises to be a banner meeting in all respects. Committees have started preparations and members who wish to present papers before the scientific session are asked to write Dr. Hoyt R. Allen, Chairman, Committee on Scientific Work, 826 Donaghey Building, Little Rock.

RANDOM THOTS OF THE SECRETARY

August 19th. On this day a prayer for those for whom victory came too late.

August 20th. Across the turbulent top of the Ouachitas this afternoon, stopping for gas at Hot Springs where the new airport is almost ready for business and thence across forests in extent to McGehee where we fulfill our pledge that we meet the Southeast Arkansas Medical Society when "victory comes." It being President Archer's natal day, the group does the handsome thing with the presentation of a Parker 51 gold pen and pen-

cil. Reid and Hames offer encouragement on virus pneumonias and with talk of medico-economic problems the session continues late, adjourning with an inspection of Smith's new office where he can, at long last, practice medicine as he has hoped.

August 21st. Overcast skies force a return Pine Bluff to Conway via the Arkansas river but clearing skies then permit smooth flying down the valley and across Mount Magazine, its crest gently topped with a cumulus cloud, on home and to the duties of the day.

August 28th. After the lapse of many, many months comes Sisco with brief discussion of the geography of the South Pacific and especially of the topography of Luzon in whose mountains he was actively engaged as late as July 9th.

August 29th. Not only with cigarettes in plain view, but there is additional evidence of reconversion with the receipt of the first gasoline credit card we have had since rationing began.

August 30th. We urge the two ladies who became air sick this afternoon on the Little Rock-Memphis flight to never, never fly across the Ouachitas on a hot summer afternoon in a puddle-jumping Cub.

August 31st. Meeting with the Council on Medical Service and Public Relations at American Medical Association headquarters all this day and getting an idea of the trials, tribulations and effort which will attend American medicine in the days ahead if we maintain medical service on the highest plane for physician and the public.

September 1st. Departing Chicago at one this morning, dozing along the way to Little Rock and into our car at seven to drive on home and to work at eleven, the eternal "why?" certainly unanswered.

September 1st. Twenty-five years ago we set forth with mixed emotions and a black bag to deliver our first baby as a practitioner of medicine in our present location: twenty-five years whose memory now brings back thoughts of conflicts, doubts, uncertainties, but mostly we are grateful that it has been our lot to try and do good in a troubled world by ministering to the ill and injured; that in so doing, we have established an equanimity which survives the minor vexations and annoyances of life; that it has been our fortune to have a small part in the practice of medicine under the American system of life; that it has been our great pleasure to know well many, many physicians who have labored without thought of reward or praise for the benefit of suffering humanity, whose sacrifices have been that of life itself in their calling, and by whose very presence here the world is far better this day than had they not appeared on life's stage.

September 2nd. We feel that "Made in Japan" as made on the U.S.S. Missouri is right for the first time.

September 11th. The Tenth Councilor Society meets tonight having Archer and Norwood as honor guests but we doubt they would have made it had not Norwood acted as navigator. In a demonstration of practical politics, George Love becomes president and, in addition to talks by most of those present, the pros and cons of various issues are debated to ultimate satisfactory decisions.

September 12th. Tonight we engage in home work with the youngster and, while we can differentiate subjects and predicates, we find their definition most difficult.

September 13th. With the amiable Crigler as traveling companion, driving to Rogers tonight where the Benton County Medical Society and their ladies turn out a good

attendance and we give some of our ideas on what legislation promises to do to our present system of medical practice. Despite the gloom of these thoughts there is much of happiness in the meeting and we wish that once again Clyde and Lee might have been with the group. Among the pleasures of the session is to greet Sisco, now a civilian doctor.

COMMUNIQUE

U. S. Naval Hospital, SOQ 2,
San Leandro, California
September 5, 1945

To the Editor:

Greetings! from the wonderful soil of these good old United States. I arrived in San Francisco this week after an uneventful series of air and island hops from Okinawa to Guam, Kwajalein and Pearl Harbor. I don't remember whether I wrote you while on Okinawa as it was a nightmare from the first week in April until July 9th, and we didn't know what we were doing half of the time. Our unit (Corps Evacuation Hospital No. 3) had the job of all evacuation of casualties by air and the majority required surgery on the spot with hospitalization before making the trip back by air.

I wanted to tell you that your Random Thots found me, coming straight as an arrow from the salubrious banks of the Arkansas, my erstwhile quandom haunts, to find me in the bomb-pocked bloody battleground of Okinawa. I particularly enjoyed reading your corny little missive during those few sacred moments after breakfast in the grunt and groan department behind officer's country where one was wont to retire to the sanctity of the Okinawa version of a rather crudely erected Chic Sale 4-holer. However, it was in such a setting that I sat with my 45 laid out and within reach of my right hand reading your news sheet.

I've seen few of the fellows from Arkansas. Most of them must have been in the ETO. I saw Gaston Hebert however, I know that many are out in the Pacific but distances are so vast you find it easy to just miss someone who just left the area. I've bumped into many of my former Memphis colleagues, however.

Hope to get back home on a visit soon and if so will probably see you. My address here is temporary, but I expect to be assigned duty on the west coast.

Best regards,

Chas. S. Paddock,

Lt. Comdr, M. C., USNR

PROCEEDINGS OF SOCIETIES

The Fifth District Medical Society will meet at 4 P. M. Tuesday, October 16th at the Municipal Auditorium in Camden. A number of distinguished guests have been obtained for this interesting program. Acceptances have already been received from Surgeon General of the Navy, Vice-Admiral Ross T. McIntire, Governor Ben Laney, Dr. R. L. Sanders, prominent surgeon of Memphis, Captain H. R. Boone, Commanding Officer of the U. S. Naval Hospital of Memphis and Dr. George S. Benson, president of Harding College. A public meeting will be held in the evening.

Benton County Medical Society held "Ladies Night" with a dinner session at Rogers, September 13th with W. R. Brooksher, Fort Smith, speaking on "Trends in Proposed National Legislation."

Geo. M. Love, Secretary.

The Tenth Councilor District Medical Society and the Sebastian County Medical Society met in joint dinner session at Fort Smith September 11th with W. G. Eberle presiding. The meeting was addressed by President C. A. Archer, DeQueen; Councilor Earle Hunt, Clarksville; M. L. Norwood, Lockesburg; Colonel Myll, Camp Chaffee, and W. R. Brooksher. Officers elected are: President, Geo. M. Love, Rogers; Vice-president, W. G. Eberle, Fort Smith, and Secretary-treasurer, Ralph E. Crigler, Fort Smith.

The Fifth Councilor District Medical Society will meet at Camden October 16th with the following as special guests and speakers: Admiral Ross T. McIntire, Surgeon-General, United States Navy; Stanley J. Seeger, Texarkana, Vice-president, American Medical Association, and Governor Ben Laney.

The Southeast Arkansas Medical Society met in dinner session at McGehee August 20th with President Archer as honor guest. It being President Archer's birthday, the Society presented him with a pen and pencil set and a birthday cake decorated the table. The Society recorded its opposition to the Wagner-Murray-Dingell bill (S. 1050), the Pepper bill (S. 1318), approved a 1945 session of the House of Delegates of the Arkansas Medical Society and requested the War Department to release all medical officers not now needed for military duties in order that

they might return to civilian practice. S. C. Clark, Lake Village, and M. C. Crandall, Wilmot, were elected president and secretary respectively. Chas. W. Reid and Fred Hames, Pine Bluff, presented a symposium on virus pneumonia. M. C. Crandall, Secretary.

The Pope-Yell County Medical Society met in dinner session at Saint Mary's Hospital, Russellville, August 9th with Robert Hood discussing bronchial asthma and its control.

Ellis Gardner, Secretary.

OBITUARY

WALLACE LINN BRITTAIN, age 41, died at his home in Conway September 4th. Born at Bee Branch, Van Buren County, he graduated from the University of Arkansas School of Medicine in 1928 and interned at Saint Joseph's Hospital, Houston, Texas. He practiced at Higilo Bend, Arizona, before coming to Conway in 1932. He was a member of the Faulkner County Medical Society, the Arkansas Medical Society, the Southern Medical Association, a Fellow of the American Medical Association and chief of staff at the Conway Memorial Hospital. Surviving relatives are his wife, two daughters and two sisters.

COMMUNIQUE

Fiji Islands
August 30, 1945

To the Editor:

No new reports from here. Morale amongst the men is a serious problem in a place of this character. There isn't anything to do either from the viewpoint of the army or that of the men. The inactivity is as great a problem as any. Everyone wishes to go home or to be transferred where there is work to do, which would probably mean that they would get to a replacement depot and stay for months while things are getting settled and they know where they want us. So, we sit and wait. Best of luck and thanks for your letters.

Sincerely,
Jerome S. Levy, Major, M. C.
HQ USAF Med. Det.
APO 913, c/o Postmaster
San Francisco

PERSONALS AND NEWS ITEMS

Major and Mrs. Stanley M. Gates, Veterans Facility, Alexandria, Louisiana, spent a recent vacation in the "Evangeline" country of Louisiana.

Samuel S. Kirkland, Van Buren, now assigned to the 38th Field Hospital, Iwo Jima, has been promoted to lieutenant-colonel.

Capt. Leslie G. Holt, Little Rock, is now assigned to the 61st General Hospital, Camp Sibert, Alabama.

Jack W. Kennedy, Prescott, assigned to the 127th Evacuation Hospital in the European theater, has been promoted to captain.

W. P. Scarlett has assumed duties as city health officer at Little Rock.

I. H. Jewell has been elected surgeon of the Paris post of the American Legion.

E. J. Horner has been elected medicin of the Jonesboro voiture, Forty and Eight.

Capt. Art B. Martin, Fort Smith, is now assigned to Co. "D," 105th Medical Battalion, Fort Jackson, South Carolina.

Major J. K. Donaldson, Little Rock, visited home on leave during August.

Capt. Gerald Blankfort, Little Rock, is now assigned to the Army Air Forces at Santa Monica, California.

Major W. D. Easterling, Lake Village, who has been on duty in England, visited home on leave during August.

H. K. Wright, who has been in military service, has opened offices for practice of general surgery at 902 Medical Arts Building, Hot Springs National Park.

Major Friedman Sisco, Springdale, who has been on duty in the Southwest Pacific for nearly three years, visited home on leave during August.

The following have been appointed as an advisory committee to the Rehabilitation Division, Arkansas State Board of Education: Jos. F.

Shuffield, Little Rock, orthopedics; S. C. Fulmer, Little Rock, internal medicine; W. R. Brooksher, Fort Smith, radiology; K. W. Cosgrove, Little Rock, ophthalmology; Geo. B. Fletcher, Hot Springs National Park, neurology; A. D. Cathey, El Dorado, surgery, and H. Fay H. Jones, Little Rock, urology. A. R. Sparks, Little Rock, will serve as part-time medical consultant.

Harlan H. Hill, Little Rock, stationed in the Hawaiian Islands, has been promoted to major.

Capt. James Q. Blackwood, Helena, is now stationed overseas.

E. C. Moulton, Fort Smith, spent an August vacation in Colorado.

Captains H. V. Kirby and O. B. McCoy recently visited their homes in Harrison on leave from overseas duty.

Major Ed Dunaway, who has been on duty with an evacuation hospital on Guam, visited Conway on leave during September.

Major Rogers Hedrick, Booneville, who has been on duty in England, visited home on leave during September.

M. E. Foster, Fort Smith, spent a September vacation in Colorado.

Dr. and Mrs. Virgil Payne, Pine Bluff, spent a recent vacation at Corpus Christi.

J. J. Delaney has been elected surgeon of the Fayetteville post of the American Legion.

Lt. Jean C. Gladden, Harrison, is now stationed at Finney General Hospital, Thomasville, Georgia.

Asa C. Watson, Jr., now stationed overseas, has been promoted to captain.

Major E. Driver Rowland, Hot Springs National Park, who has been on duty in the Marianas, visited home on leave during August.

J. L. Bean has moved from Lincoln to Stilwell.

Capt. W. E. Phipps, North Little Rock, who has been on duty in England, has returned home on leave and will be reassigned to the 157th

General Hospital at Camp Sibert, Alabama.

H. B. Thompson, Fort Smith, spent a recent vacation in Minnesota.

W. H. Abington has been elected surgeon of the Beebe post of the American Legion.

After over four years of military service, Julius H. Hellums has been released and has returned to practice at Dumas.

S. T. Trice has moved from Dierks to Center Point.

A. D. Cathey, El Dorado, has been elected chairman of the Professional Advisory Committee to the State Board of Vocational Rehabilitation.

Friedman Sisco, after over four years of service as Major, Medical Corps, Army of the United States, has been released and has returned to practice at Springdale.

Robert M. Kelly, Sheridan, after four years of military service as Captain, Medical Corps, Army of the United States, has been released and has returned to practice at Sheridan.

Comdr. Fred H. Krock, Fort Smith, who has been on duty in the Russell Islands for the past two years, visited home on leave during September.

COMMUNIQUE

August 31, 1945

To the Editor:

So far I have not missed a single issue of The Journal or of "Random Thots" nor would I.

Our theater having been absorbed by another results in a shift of my location yet with the same duties of malariologist. It's summed up from one administrative paper shuffling paradise to another on similar echelon.

The scenery in Manila is quite remote from that of Honolulu for the past 9 months and mainly due to the intactness of building.

I see no one from Arkansas therefore to keep in contact with home I am sending a new address, my appreciation for The Journal, and a desire for more to come later.

My age and my points are both too low.

Sincerely,

Harlan H. Hill, Captain, M. C.

COMMUNIQUE

July 7, 1945

To the Editor:

I seem to have a recollection that I have written you recently but time goes by down here in such a leisurely manner that one forgets easily. Perhaps its that I have thought so often of writing and what I would say that it now seems like the act itself.

I am permitted to say that I am on the * * * Islands. I am the Base Surgeon of the Medical Detachment and C. O. of the Hospital-Dispensary. Its a nice pleasant job which requires a moderate amount of administrative duties. The food is excellent, the quarters comfortable, the men a very congenial group, and the Base CO a swell fellow. The weather is nice, the native * * friendly, the * * friendly and shrewd, the white or European population interesting. Tom Adair of Bald Knob is with me here and is doing a fine job. We manage a few games of bridge ever so often, experiment with chess, see the movies, and have our beer or cocktail before mess. The fishing is good and the blue Pacific yields from 150-200 pounds of fish whenever the boys go out for the day.

Do we in the Army have to request The Journal too? If so, consider this a request. I find The Journal is one of the best ways of keeping up with the gang from home.

Which brings to mind the notice of Sid Wolferman's death. I was quite shocked. What happened to him? Had he been ill for a while or was it a sudden heart condition? Please express to his family my deepest sympathies. We have all lost a good friend and Medicine has lost a very loyal and capable worker.

The problems of medicine on the Island are many. Tuberculosis and diabetes are two conditions which are found in unusual amount. I go once a week to the hospital in * * * which is one equipped and staffed by the * * *. Since their X-ray outfit is not working, we do all their X-ray examinations here. I do not have a fluoroscope but the quality of the films we make is high. Tuberculosis is prevalent amongst both the * * * and the * * *. Diabetes is prevalent amongst the * * *. I have seen several Hodgkin's diseases, at least one proved by sections. I haven't seen any leprosy but there is a goodly number of cases from the island. I am arranging a trip to * * * where the leper colony is. Yaws is prevalent but I have seen only several cases. I have seen some filariasis but none in our troops. I have seen some dengue but also none in our

troops. Malaria is non-existent here. Our mosquito control is excellent and the local authorities are most cooperative. They don't want malaria introduced in the islands any more than we do. So far, the anopheles hasn't lived here. All in all, I find many things of interest around here, but then I would at home, too. I note your remarks about Donald Hayes' difficulty in keeping his men and the Polish girls apart. Ask Donald who watches over him? My best regards to all the gang in Fort Smith, Little Rock and all over the state. Best of luck. The local government is issuing me a license to practice medicine in * * *. Nicè, eh what?

Sincerely,
Jerry Levy,
Major, M. C.

ARKANSAS STATE CANCER COMMISSION

The Arkansas State Cancer Commission has issued tentative rules for payment of hospital and domiciliary care of medically indigent citizens suffering with cancer. An allocation not to exceed fifty dollars will be made for the payment of hospital or domiciliary care of such patients on the certificate of a licensed physician in Arkansas that such patient is unable to provide himself with such care. Requests for allocation of funds should be made to Dr. Carl A. Rosebaum, 626 Donaghey Building, Little Rock, Secretary of the Commission, and should give pertinent data as follows: name, address, age of patient, diagnosis, treatment contemplated, place of treatment, attending physician. A further requirement in all cases receiving benefits under the provisions of the Cancer Commission Act, is that a specimen of tissue shall be sent to the University of Arkansas School of Medicine, Department of Pathology, for histopathological examination. No funds are made available, at this time, for the payment of medical care. Present rules are tentative and subject to review and change by the Commission at a later date.

COMMUNIQUE

August 17, 1945.

To the Editor:

Just received your last "Random Thots" and enjoyed hearing from you lots. Since writing you we have moved into another part of this big country.

You were right in stating that we were in the Salween campaign and that part of the

country is as rough as they go. We took care of many Chinese wounded, every kind of surgical condition that war can produce and plenty of them. We had a short rest and then set out for this part.

We have been here several months and have been running a hospital for GI personnel alone. It was a pleasure to have the change. We have set up a nice hospital here and our hospital is in buildings. However, we still live in tents which I prefer after having lived in them so long. We have wood flooring and imitation screen netting to keep the flies and mosquitoes out. We still take atabrine and all of us are as yellow as pumpkins.

Just learned a few days ago of the Jap surrender and we were quite excited over it. There was no celebration, for we are all thankful for being alive. Some of our buddies will never leave this country and they also lived to return to the USA but the hand of fate was against them. We are anxiously awaiting information about when we will be on our way home. I assure you it will be a grand and glorious feeling to know you are on your way.

This is about all I can write at present. I hope to drop in to see you if I clear through the separation center at Chaffee. * * *

Sincerely,
Hunter A. Causey, Capt., M. C.

COMMUNIQUE

Hof, Germany
August 11, 1945.

To the Editor:

I have been receiving and enjoying my copies of both The Journal and Random Thots. Thanks for keeping them coming. There is a matter of much concern to me, and all doctors, which I'd like to mention to you. You have undoubtedly given it thought already. In my opinion there is being made a very strong effort to regiment the practice of medicine through control of the armed forces. Many hundreds of doctors over here are idle, and have been since V-E day. Yet few have been allowed to go home except en route to redeployment and practically none are being discharged. Officers of other branches with less points are being flown home but not medical officers. All the transportable casualties are home and civilian practitioners are needed. So why? I think you back there might ask some pointed questions and find out the score. Be alert—take it from me a regimented practice

of medicine stinks. I believe that it is the chief difficulty now being encountered in the Veterans Administration.

Regards,

Louis Hyatt, Capt., M. C.
Co. "B," 301st Med. Bn.,
APO 76, New York.

COMMUNIQUE

Med. Detach., 219th Qm. Bn.
APO 350, Postmaster,
New York, New York,
August 15, 1945.

To the Editor:

Just received your letter today with the 1945 membership card and my first edition of "Random Thots," Service Edition, and greatly appreciate them both.

Two of us University of Arkansas graduates are in similar units at the "Camp Washington," AAC Camp, awaiting redeployment. The other is William (Bill) Magness (Class of 1938) who is with the 218th Qm. Bn.

Everybody is rejoicing in the news of V-J Day and here is hoping we see you again, in person, this time, in "God's Country—Arkansas."

Yours, in Victory,

Leo E. Peters, Capt., M. C.

COMMUNIQUE

To the Editor:

I have missed your news letter and The Journal since coming overseas. Am writing you so as to get back on the mailing list. I am Surgeon, Special Troops with the . . . Division located near . . . Jernigan from Little Rock, class of about 1940, is C. O. Division Clearing Station. He has been with the division about 3½ years and has done an excellent job. Understand there are quite a few more Arkansas doctors around but have not run into them.

Best regards,

Virgle E. Lyons,
Major, M. C.

COMMUNIQUE

To the Editor:

It is with most pleasure that I receive regularly and monthly a copy of "Random Thots" and The Journal. I can assure you that every word is enjoyed and no news is so welcome as

that from members of the Medical Society at home and in the Army.

My job is still, and has been, that of "bugologist," more commonly referred to as malarialogist, for this theater. It is in this sort of work that I have run into two Arkansas boys, namely, Corbin Crouch and Bill Chapman. We three have met several times on this island of Oahu in the Hawaiian group. Life here is nothing but pleasant and all are not too unhappy, yet having the desire for one U. S. A.

Through The Journal was received the first word in months of Robert L. Turnbow. I would like very much his address.

With much regret I read of the unfortunate loss of Dr. Madeline M. Melson and Lt. Hira C. Baker, Jr.

Recently the surprise of a promotion was my good fortune.

Sincerely,

Harlan H. Hill, Maj., M. C.
Hdqs. USAF
Pacific Ocean Areas
APO 958, Postmaster,
San Francisco.

COMMUNIQUE

September 11, 1945

To the Editor:

I came through Camp Chaffee for separation and certainly planned to come through Fort Smith and call or see you. However, I felt that I would be there several days, and finding that I was separated in a few hours and, late in the afternoon, I didn't have the opportunity to drive in and see you. I returned that same night.

It is an indescribable sensation; one does not have the words to express his feelings at getting out of the army. Really, though, it is just now sinking in and I am finally feeling that I am or am about to be a civilian again. My only hopes now are that my cohorts and friends still in the service will have an early opportunity to experience my present joy.

I have been in four years and four months and have been to a good many places in North, Central and South America, and I can truly say that the best thing I saw in the army were the orders releasing me and that good old Razorback Arkansas is the place for me.

Looking forward to seeing you again when the opportunity presents,

Yours truly,

Julius H. Hellums

The fiftieth anniversary of the discovery of x-ray will be celebrated on a national basis during the week of November 5 to 10 under the sponsorship of the American College of Radiology, Mac F. Cahal, executive secretary of the group, announced today.

The anniversary celebration, Cahal said, will mark the development of x-ray as a medical instrument and call public attention to the uses of radiology in the diagnosis and treatment of disease. It will also seek to educate the public to the services of the radiologist, a physician, who specializes in the medical applications of the x-ray, devoting his skill to the interpretation of x-ray film for diagnosis and the application of x-rays in the treatment of many maladies.

The x-rays, so-called because science did not know their exact nature, were discovered by the German physicist, Wilhelm Conrad Roentgen, on November 8, 1895, at the Physical Institute of the University of Wurzburg in Bavaria. Early in his experiments with the newly discovered rays, Roentgen found that they would penetrate opaque objects, among them the human body. Interposing his hand between the source of the rays and a piece of luminescent cardboard, Roentgen saw the "bones of his living hand projected in silhouette upon the luminescent screen."

His discovery electrified the medical world, which immediately saw the vast possibilities of this new instrument in the war on injury and disease. While the public is generally familiar with the use of x-ray in the detection of broken bones, Cahal said, it does not fully appreciate, perhaps, the employment of radiology in diagnosing "soft tissue" pathology and the use of x-rays in the prevention and treatment of disease.

No part of the human body, due to developments in the medical uses of x-ray over the past half-century, is now hidden from the radiologist. By means of x-ray examination, the radiologist can detect diseased conditions of the brain, the heart, the lungs, the digestive tract and other parts of the body, eliminating guesswork almost entirely. Incipient cancer, tuberculosis and other maladies are quickly diagnosed by radiology, allowing for preventive treatment which more often than not arrests the disease. The x-ray plays an indispensable role in dentistry. Also, cancer, various blood diseases and other conditions may be checked by radiation, that is, through treatment with x-rays.

The "golden jubilee" celebration of the discovery of x-ray, Cahal added, will emphasize the above-mentioned health attributes of x-ray in

medicine, seeking, particularly, to acquaint parents with the most important role of radiology in the early detection of disease in youngsters. Public education in this respect, he pointed out, will go far in forestalling diseases, which, if allowed to develop, would undermine the health of youngsters, perhaps resulting in untimely death.

BOOK REVIEWS

Men Under Stress, by Roy R. Grinker, Lt. Col., M. C. and John P. Spiegel, Major, M. C. Pp. 484. Philadelphia: The Blakiston Company, 1945.

This book was written by two of the leading psychiatrists of the United States. They served in combat areas where they had a splendid opportunity to study and record the results of physical stress and strain and the emotional upsets of thousands of men in battle. They devised new methods of treatment which resulted in the recovery of thousands of psychiatric casualties and their return to active duty instead of becoming chronically ill and thus become a total liability to themselves, their families, and the government.

Much has been written in both the lay and medical press during the past several months about war neuroses among our service men, especially the men returning home from combat areas. This has caused much misunderstanding of the subject. This book is so well written in everyday language that even the average layman will have no difficulty in reading and understanding it. A copy of this book should be in every home represented in the various branches of the service. Every physician should have a copy because it will enable him to understand better his nervous patients, not only those in civilian life, but the returned service men and women who may consult him.

ARKANSAS STATE CANCER COMMISSION

The Arkansas State Cancer Commission, established under Act 277 of the Legislature of 1945, has organized to provide care for indigent cancer patients in the state. Under the plans now in effect, the Commission will pay from state funds, hospital or domiciliary care for indigent citizens for a period of twenty-one days. Application for such benefits is to be made by the family physician who will furnish the name, age and address of the patient, diagnosis, place of hospitalization or domiciliary care and the name of the attending physician together with a statement that the patient is unable to provide this care from his own funds. A short history of the case will be required and a tissue specimen is to be sent to the Department of Pathology, University of Arkansas Medical School, Little Rock, for study. At present, no provision is made for the payment of fees to physicians for the care of these patients. Applications for funds and correspondence should be directed to Dr. Carl A. Rosenbaum, Secretary, Arkansas State Cancer Commission, 626 Donaghey Building, Little Rock.

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1945

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LITTLE ROCK, ARKANSAS, NOVEMBER, 1945

No. 6

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*Based on average reported values for milk.

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No. 6

THE HEMORRHAGIC DIATHESIS

J. N. COMPTON, M. D.*

The hemorrhagic diathesis may be defined as the tendency to bleed due to some defect of the blood itself, or to an increased capillary permeability. This tendency to bleed may be due to a primary blood disease, such as hemophilia, or secondary to known causes, such as vitamin deficiencies, poisons, or toxins.

Only the commonest diseases of the hemorrhagic diathesis will be discussed in this paper. These are the purpuras, hemophilia, leukemia, aplastic anemia, hemorrhagic disease of the newborn, jaundice, and scurvy.

Following tonsillectomies, tooth extractions, or other surgical procedures, a moderate sized blood vessel may be injured and escape ligation, or suture. Too frequently, a defect of the patient's blood, such as failure of coagulation, is blamed for the hemorrhage rather than trauma to the blood vessel which may be too large to seal itself off at once. Defects of the blood can usually be ruled out by making the special examinations of the blood discussed in this paper.

Blood Coagulation

In order to understand some of the causes of the hemorrhagic diathesis, it is necessary to review briefly the coagulation of normal blood. The following reaction is thought to take place:

CALCIUM plus **THROMBOPLASTIC FACTOR** plus **PROTHROMBIN** equals **THROMBIN**

THROMBIN plus **FIBRINOGEN** equals **FIBRIN**
FIBRIN forms a fine meshwork to cause a clot.

In the above reactions—

calcium is supplied by the blood plasma.

thromboplastic factor is supplied mostly by the platelets, but small amounts may be supplied by the blood plasma.

prothrombin is supplied from the plasma, after it is synthesized by the liver from vitamin K.

fibrinogen is thought to be manufactured by the liver.

Certain deficiencies, or defects, of one of the above factors will cause abnormal bleeding. However, there is no known disease entity in which a deficiency of calcium is thought to be responsible for hemorrhage, perhaps due to the fact that a deficiency of calcium low enough to cause hemorrhage would be inconsistent with life. Even in parathyroid deficiency and tetany with low calcium blood levels, hemorrhage does not occur. Also, fibrinogen deficiency is thought to be a rare entity, but it does occur in both a congenital and acquired state, and is responsible for abnormal bleeding. Only about fifteen proven cases have been reported in the literature, and because it is such a rarity, it will not be discussed in detail here.

On the other hand, a deficiency of thromboplastic factor and prothrombin is not rare, and is known to cause several hemorrhagic states. Thromboplastic substance is supplied almost entirely by the blood platelets, and where there is a low blood platelet count, bleeding may take place. Clot retraction depends on the presence of an adequate number of blood platelets, and where the platelets are too few in number, the clot retraction is delayed or absent. Prothrombin is also necessary for the formation of thrombin, and where there is a vitamin K deficiency, either due to lack of ingestion, absorption, or synthesis of vitamin K, prothrombin may be inadequate to form thrombin.

Methods of Investigation and Normal Laboratory Procedures

For the differentiation of the various types of hemorrhagic diseases, there are necessary not only a full history with particular emphasis on abnormal bleeding of either the patient or members of his family, physical examination, and the usual study of the blood, especially of the cellular elements, but in addition: (1) an accurate platelet count, (2) bleeding time, (3) coagulation time, (4) clot retraction time, (5) determination of the prothrombin time as evidence of a deficiency of vitamin K, (6) determination of the ascorbic acid in the blood as an indication of vitamin C deficiency, (7) the capillary resistance

* Associate Professor of Medicine, University of Arkansas School of Medicine, Little Rock.

test (Rumpel-Leede), and (8) examination of the sternal bone marrow.

The normal platelet count is from 200,000 to 400,000. The normal bleeding time is from one to three minutes. The normal coagulation time varies somewhat depending on what method is employed. By Howell's method, the normal is ten to thirty minutes. By Eagle's method, normal is three to twelve minutes.

By clot retraction time, is meant the time at which the blood serum or plasma separates from the clot in a test tube. This usually begins in normal blood after one to two hours, but is not complete for eighteen to twenty-four hours. The blood platelets are thought responsible for the clot retraction, and a decrease in their number makes a soft clot, or no clot at all. The blood platelets are also thought to have some influence on capillary permeability in some way and may act as plugs, or cement substance, to prevent oozing from the capillaries.

The normal prothrombin time is twenty to twenty-five seconds. An increase of twenty per cent in the prothrombin time is pathological.

The normal ascorbic acid content of the blood plasma is .5 to 1.5 mg. per cent, while the twenty-four hour urine output is from five to fifty mgs.

The capillary resistance test (Rumpel-Leede) is elicited by placing the blood pressure cuff on the arm and inflating it just above the diastolic pressure for three minutes. In a positive test, petechial hemorrhages appear below and under the cuff. This is a test for increased capillary permeability, such as may appear in purpura or in vitamin C deficiency.

The sternal bone marrow examination is too detailed to discuss in a paper of this kind. Suffice it to say, that in purpura there is a marked hyperplasia of the megakaryocytes (which are young platelets) as well as marked changes in their appearance. In aplastic anemia, considerable variability is found in the bone marrow, at times even hyperplasia, but generally aplasia and an absence of cells. Bone marrow studies may be of considerable value in differentiating the aleukemic stages of leukemia from aplastic anemia.

Hemorrhage Due to Decreased Thromboplastic Factor, or Platelets

In the following diseases, bleeding is due to decreased or defective platelets (thromboplastic factor):

- Primary purpuras
- Secondary purpuras with thrombocytopenia
- Hemophilia
- Leukemias

Aplastic anemia

Hemorrhage Due to Decreased Prothrombin

In the following diseases, bleeding is due to decreased prothrombin:

Hemorrhagic disease of the newborn

Jaundice:

Obstructive

Biliary cirrhoses

Toxic and infectious.

Hemorrhage Due to Increased Capillary Permeability

Such diseases are the following:

Secondary purpuras without thrombocytopenia

Infections

Intoxications and poisons

Radiation therapy

Scurvy

Purpura

Purpura is a symptom complex just as jaundice is a symptom complex, and the petechial hemorrhages that occur in the skin and other tissues are the result of some disturbance of the blood platelets, or the capillaries, or both. The physical sign **purpura** occurs in a great many disease states, only a few of which can be discussed here.

The classification of the purpuras is rather confusing. They may be primary or secondary.

Primary purpura is one due to unknown causes with a marked depression **always** of the blood platelets, or a thrombocytopenia. In this type, removal of the spleen cures the disease. **Secondary** purpuras are always secondary to some disease, infection, intoxication, poison, or radiation therapy.

Secondary purpuras occur with, and without, depressed platelet counts, or thrombocytopenia. Removal of the spleen does not cure secondary purpuras whether with, or without, thrombocytopenia. It is, therefore, important to know whether one is dealing with a primary, or a secondary purpura for this reason. The main point of differentiation lies in determining whether any cause whatever can be found which might cause the purpura to be secondary. This is usually easy in most cases.

Since bleeding tendency in both primary and secondary purpuras with thrombocytopenia is due to a lack of platelets, or thromboplastic factor, they will be discussed under this head. Since the bleeding tendency of secondary purpuras without thrombocytopenia is thought to be due to increased capillary permeability, it will be discussed under this head.

Diseases in Which Bleeding Is Due to Disturbance of the Platelets Primary Purpura

There are a number of synonyms for this type of purpura: Essential, or idiopathic thrombo-

cytopenic purpura, or Werlhof's disease, are the same. It is a disease of children and young adults usually, although it may occur later in life. It is more frequent in the female. There is no known cause for it, and it is called **primary** for this reason. There is always a depression of the blood platelets, and sometimes they are even absent from the peripheral blood. Usually bleeding does not take place until the platelet count drops to 60,000 or below. Hemorrhages may take place from any part of the body, intestines, nose, gums, etc. The spleen is not usually enlarged, and is palpable in less than one third of the cases. The sternal bone marrow shows a marked hyperplasia of the premature platelets, the megakaryocytes. Faulty maturation of these megakaryocytes in the bone marrow is thought to be responsible for the decrease of blood platelets. The spleen is thought to elaborate a factor which is inhibitory to maturation. Removal of the spleen removes this inhibitory factor.

The disease may be acute, or chronic. The essential differences are that in the acute form, the purpura and hemorrhages are more severe, and the blood platelet count drops lower. The fatality rate is higher. In the chronic form, there is a tendency to relapses and remissions over a period of years. The average platelet count ranges from 75,000 to 100,000 during a relapse. Both types are subject to spontaneous remissions and spontaneous cures. The prognosis for a cure is better in a child under ten years of age and in an adult over forty. Therefore, splenectomy should be more seriously considered in a patient between the ages of ten and forty years of age. If possible, splenectomy should be postponed during an acute relapse in which there is a marked purpura, bleeding, anemia, and reduction of the platelets, until blood transfusions, iron, and other measures can improve the patient's condition.

Secondary Purpura with Thrombocytopenia

In this type, some known cause can usually be found for the purpura and hemorrhages. This agent seems to interfere in some way with the maturation of blood platelets, or destroys them rapidly in great numbers. There is increased capillary permeability probably due to the reduced number of platelets. The spleen does not seem to be a factor, and its removal does not cure the disease.

The following agents may cause this type of purpura:

Infections: Septicemia, subacute bacterial

endocarditis, typhoid fever, meningococcal sepsis, pneumonia, abscess of the lung, diphtheria, etc.

Intoxications: Quinine, benzol, snake venom, arsenicals, sulfonamide drugs, phenobarbital, etc.

Radiation: X-ray, radium.

In both primary and secondary purpura with thrombocytopenia, the bleeding time is prolonged, and the clot retraction time is prolonged, or there may be an absence of clot retraction. The coagulation time is normal. The capillary resistance test is markedly positive.

Hemophilia

This is a rare familial disease in which the bleeding time may be normal, and the coagulation time greatly prolonged, which is just the reverse of purpura hemorrhagica. The primary cause of the delayed coagulation time seems to be a delayed elaboration of thrombin. Several theories attempt to explain this delay. In one, the blood platelets are thought to be excessively stable, or tough, and fail to disintegrate to provide thromboplastic substance. In the other theory, the hemophiliac's blood plasma is thought to lack some unknown substance, possibly dissolved plasma thromboplastic substance, which is found in normal blood plasma. When normal cell free blood plasma is added to hemophiliac blood, or given intravenously to hemophiliacs, it causes a marked and often striking decrease of the coagulation time. Since there are no platelets in this blood plasma, some substance dissolved in the plasma is thought responsible for the decrease in the coagulation time.

It is well known that hemophilia is a disease of the male, but carried by the female. Because of an apparent immunity of the female by reason of her sex to the bleeding tendency, some ovarian internal sex hormone has been suggested as the immunizing factor. Theelin has therefore been used in controlling bleeding in the male with considerable success in some cases but not in all. Dried blood, or lyophile plasma has been shown to reduce the coagulation time, and in a number of cases has been shown to control hemorrhage. Blood transfusions of whole blood are still necessary where considerable anemia is present. Non-specific protein therapy, such as typhoid vaccine intravenously, by giving the patient a reaction is thought to tenderize the platelets and make them disintegrate more easily, and has controlled hemorrhage in a few cases.

Leukemia

The bleeding tendency in the leukemias is most

marked in the acute type. This tendency is due to a pronounced decrease in the platelets. Bleeding is frequently the cause of death in acute leukemia. Purpura occurs frequently. Cerebral hemorrhage is a common occurrence. Blood transfusions are hardly worth while, and are merely gestures for the satisfaction of the patient and his relatives.

Aplastic Anemia

In aplastic anemia, all the formed elements of both the white and red variety are decreased. There is a leucopenia as well as an anemia. The blood platelets are also decreased and their diminution is responsible for the hemorrhage.

Aplastic anemia is usually secondary to some other disease, infection, or intoxication. Benzol, arsenicals, X-rays, or radium, and occasionally the sulfonamides may cause it. Any of the poisons that may cause secondary purpura may also cause aplastic anemia. Aplastic anemia is occasionally a primary disease in that there appears to be an exhaustion of the blood forming organs.

The treatment consists of blood transfusions to sustain the patient until the cause can be found, if possible.

Diseases in Which Bleeding Is Due to Decreased Prothrombin

Prothrombin is synthesized by the liver in the presence of vitamin K. Bile salts are necessary in the intestinal tract for absorption of vitamin K. Certain bacteria also may be necessary to synthesize vitamin K in the intestine. Prothrombin deficiency may be due to one of three disturbances, (1) absence of vitamin K in the intestinal tract due to failure to ingest foods containing it, (2) absence of bile salts, or bacteria, in the intestinal tract, (3) liver damage or failure.

Coagulation time is prolonged but bleeding time is rarely abnormal. The prothrombin time is prolonged beyond the normal limit of twenty to twenty-five seconds.

Hemorrhagic Disease of the Newborn

During the first few days of life, the prothrombin content of the blood normally drops abruptly, but is soon restored spontaneously. In about one per cent of the newborn, the prothrombin level is not restored, and spontaneous hemorrhages and ecchymoses take place. The disturbance is supposed to be due to a lack of bacteria in the intestinal tract during the early days of life sufficient to synthesize vitamin K. At any rate, administration of vitamin K by mouth causes a prompt subsidence of the hemorrhages. This represents, then, a lack of vitamin K as a cause of the hemorrhage.

Jaundice

In obstructive jaundice, there may be a failure of bile to reach the intestinal tract due to the obstruction, and the bile salts will therefore be absent which are necessary for absorption of vitamin K. It is necessary, therefore, to give bile salts with vitamin K when it is given by mouth. When vitamin K is given parentally, bile salts are not necessary. Late in obstructive jaundice, the prothrombin levels may be low not only due to failure to absorb vitamin K, but also due to liver damage, and its inability to synthesize prothrombin.

In other types of jaundice, such as biliary cirrhoses, or toxic and infectious types of jaundice, the prothrombin levels are probably low as a result of the liver damage, and the liver's inability to synthesize prothrombin with vitamin K.

Diseases in Which Hemorrhage Is Due to Increased Capillary Permeability Secondary Purpura Without Thrombocytopenia

Secondary purpura without thrombocytopenia may be due to any of the causes listed under secondary purpura with thrombocytopenia. Just why the platelets are not reduced in one case, and reduced in the other, is not known. In secondary purpura without decreased platelets, the bleeding is due to a direct effect of the toxin, or poison, on the capillary endothelium increasing capillary permeability. There may be some defect of the platelets, too, although their number may not be decreased, which keeps them from acting as effective cementing agents.

The blood platelets, bleeding time, coagulation time and clot retraction are normal. The tourniquet test may be positive or negative. The bone marrow megakaryocytes are not affected.

Scurvy

A deficiency of vitamin C may cause hemorrhage by increasing capillary permeability. Vitamin C is thought to be essential for the proper formation of the "cement substance" between the endothelial cells of the capillary wall. Improper "cement substance" permits capillary oozing and hemorrhage. In scurvy, there is a deficiency of ascorbic acid which may result in purpura without associated reduction in the platelet count. The bleeding time is prolonged, but the coagulation time is normal. The clot retraction is good. Determination of vitamin C content of the blood may be zero, or near zero, and vitamin C content of the urine is low. The capillary resistance test (Rumpel-Leede) is markedly positive, pin point hemorrhages appearing below and under the arm band.

	Bleeding Time	Coagulation Time	Clot Retraction	Prothrombin Time	Platelet Count	Capillary Resistance Test	Sternal Puncture
Primary purpura	Increased	Normal	Delayed	Normal	Low	Positive	Premature megakaryocytes
Secondary purpura with thrombocytopenia	Increased	Normal	Delayed	Normal	Low	Positive	Premature megakaryocytes
Hemophilia	Normal	Prolonged	Normal	Normal	Normal	Negative	Normal
Leukemias	Increased	Increased	Delayed	Normal	Low	Positive	Premature white-cells
Aplastic anemia	Increased	Increased	Delayed	Normal	Low	Negative or Positive	Degenerative bone marrow
Hemorrhagic disease of the newborn	Normal	Prolonged	Normal	Increased	Normal	Negative	Negative
Jaundice	Prolonged	Prolonged	Normal	Increased	Normal	Negative	Negative
Secondary purpura without thrombocytopenia	Normal	Normal	Normal	Normal	Normal	Positive or Negative	Normal
Scurvy	Prolonged	Normal	Normal	Normal	Normal	Positive	Negative

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COMMUNIQUE

Okinawa,
30th Air Serv. Squadron,
APO No. 337, Postmaster,
San Francisco, California
September 13, 1945.

To the Editor:

Just received your "Random Thots" of August. However, The Journal does not catch up with me very frequently. Even though you change the address on my mail, it will most likely be wrong by the time this letter reaches home.

While en route to this island, news came of Japan's offer to surrender and we really "sweated them out." It's good to know there is no longer a war but the best news will be when orders

come through to go home, if they ever do.

I rather expect to be sent to Japan sometime and if so, will send another address. Please keep the Service Edition coming this way.

Yours truly,
Robert L. Turnbow,
Capt., M. C., O-419500

FOR SALE

From the office of the late E. A. Callahan, Carlisle, Arkansas:

Instrument Cabinet, Examining Table
Cabinet and Sterilizer, Scales
Baumanometer (new model)
Microscope, Instruments
Telescoping flexible arm floor Portable
Light

Address: Mrs. E. A. Callahan, Carlisle, Arkansas

EVALUATION OF CONTINUOUS CAUDAL IN A SMALL HOSPITAL

JOHN K. WALKER, M. D.

Pine Bluff

To date most of the articles on continuous caudal that have appeared in the medical publications have originated in large hospitals or obstetrical clinics. I feel that my experience working unassisted in a small hospital may be of some help to thousands of doctors in smaller communities who would like to avail themselves of the benefits of caudal analgesia. The majority of the articles appearing on caudal stress the absolute necessity of large specialized institutions and trained teams of anaesthetists and obstetricians in order to safely administer this routine. These are fine, if available, but their absence need not deny caudal to over 90% of the women of the United States. It is my belief that caudal analgesia may safely be given in even the smaller hospitals providing certain basic principles are adhered to and that the administering obstetrician has had certain training.

I practice obstetrics in a town of 35,000 in a 100-bed hospital. The 25-bed obstetrical division is modern in every detail and there is a registered nurse-anaesthetist on call at all times. My personal medical training has been no more extensive than that of hundreds of other doctors in smaller communities who no doubt would like to use continuous caudal in their obstetrical practices. Following my rotating internship I had a nine month post-graduate internship at the Chicago Lying-In Hospital. This was followed by an obstetrical residency at the John Gaston Hospital in Memphis, Tenn. More recently I have availed myself of the short course in caudal analgesia given at the Philadelphia Lying-In Hospital under the supervision of Dr. Robert A. Hingson. I list these personalities only to show that continuous caudal can be safely given by individual obstetricians in smaller communities and hospitals.

At the time of this writing I have used continuous caudal in 210 cases over a period of twenty months. The fact that these comprise approximately one-third of my deliveries will indicate that I use the method only in selected cases. In the selection of cases for caudal I adhere strictly to the physical standards set down by Drs. Hingson and Edwards which have appeared from time to time in the journals. Beside the physical qualifications I also take into consideration the past obstetrical history, eliminating those

with previous rapid easy deliveries as well as some with particularly long labors. I have also found it best to eliminate those highly emotional individuals who would likely make poor subjects. A certain number of prospects are ruled out because of their fear of caudal. I never try and convince this type to try caudal.

I employ the routine as prescribed by Hingson and Edwards and find it satisfactory for my needs. I have attempted to keep up with their improvements in technique and have modified my routine from time to time accordingly. It is not the purpose of this paper to outline the details of administration of continuous caudal or to list and comment on all the benefits and dangers of the method. I do feel, however, that certain points may well be brought out as pertaining to my particular type of practice and my own observations in my relatively small series of cases.

I do not start my caudal administrations as early in labor as is advised by most of the large clinics. Working unassisted as I do, the time element would make it prohibitive. In addition to this it has been my observation that cases under caudal analgesia for longer than five or six hours become nervous and quite restless. After this length of time many patients will complain of cramps or discomfort in their back or shoulders. This is apparently due to lying in one position for too long a time but it is a discomfort nevertheless. Whereas most writers report an average length of time for the caudal of five hours; my administrations will average nearer three hours. I handle my cases in labor prior to the initiation of caudal in varying ways depending on the nature of the findings. It is only necessary in the vast majority of cases to explain to the patient that it is best to wait as long as possible to start since by that it will work better. Certain women that have long tedious first stages of labor or those that manifest great discomfort before it is advisable to start the caudal, may be given adequate doses of barbiturates. In passing I may say that I have found this premedication indicated in less than 5% of my series. To those unfamiliar with continuous caudal, my average of only three hours administration would indicate that I use it only in the terminal stages of labor. Caudal appreciably shortens the latter part of the first stage of labor and this three hours would lengthen into six or more if the method were not employed. Added to this is the fact that in my series the second stage of labor is of less than thirty minutes duration. This last is due to the fact that I terminate all my caudal

deliveries at the very beginning of the second stage of labor with outlet forceps.

I use the standard continuous caudal equipment with the maleable steel needle. In addition to the regular equipment I keep a resuscitator with oxygen beside the labor bed at all times. To date I have had no need for this. I also include a regulation spinal needle in each sterile set. The administration is carried out in the labor room under the strictest aseptic technique. The patient is kept on her side throughout the procedure thereby minimizing the danger of infection at the site of the needle puncture. From time to time she is allowed to change sides during which she is rolled over on the abdomen to prevent bending or contamination of the needle. When dilation of the cervix is complete she is given her last injection and the caudal needle removed. The puncture wound is then painted again with Tr. Merthiolate and an adhesive pad placed. She is then placed on her back on a wheeled stretcher, taken to the delivery room and delivered at once. I find that in this way there is not the danger of infection or of bending or breaking the needle that there is when the patient is carried to the delivery room with the needle still in place. I have had no cases in which the perineal anaesthesia has worn off before delivery and repair were completed.

As stated earlier, I deliver practically all my cases with outlet forceps. In the absence of the expulsive pains of the second stage of labor it is quite difficult to get the patient to bear down with her contractions. Therefore instrumental intervention is the rule. There have been only two cases in my series that delivered spontaneously. One delivered with the expulsive force of the uterus alone and the other had to be told to bear down with each contraction for nearly an hour. Repair of lacerations or episiotomy is greatly facilitated due to the marked perineal relaxation and the minimum of uterine bleeding.

My experience in minor reactions, etc., has closely followed those experienced in larger clinics. I do not believe that I have encountered as much nausea as other operators would indicate. Nausea or vomiting during labor is, in my opinion, due to dilation of the cervix and is little affected by medication. I have noted the "sciatic sign" in approximately 75% of my series and in all of these the results of the caudal were excellent. Diziness has been noted in over 80% of my cases. It has never been objectionable and usually is noted only after the first injection

and then only for a few seconds duration. A number of patients will complain of dizziness when first turned on their backs after the needle has been withdrawn. 100% of my patients have undergone a drop in blood pressure. This is, as a rule, very mild and not noticeable subjectively. In only four cases have I found it necessary to use stimulants. These had 1cc. of Ephed. Hydrochloride by hypo with immediate recovery. Another thing I have noticed in 100% of my cases is that unless the feet get hot the pains are not relieved. One of the most outstanding findings in caudal deliveries is the excellent condition of the baby at birth. I have yet to need any form of resuscitation of the new-born delivered under caudal. Neither have I had a case of still-birth. They will invariably cry within sixty seconds after delivery and will usually make their first respiratory efforts as soon as the mouth has passed over the perineum. This is in marked contrast with so many other forms of pain relief. Post-delivery uterine bleeding is definitely diminished.

In evaluating the results of my caudal administrations I have used the grades of Excellent, Good, Poor and Failure. Cases which are entirely relieved of any consciousness of uterine contractions are classed Excellent. Those who are conscious of contractions but are relieved of pain are classed Good. When the patient gets only partial relief or unilateral complete relief she is graded Poor. Those who get no relief and require a subsequent inhalation anaesthesia for delivery are graded as Failures.

Following are tabulations of the results of the 210 cases that I have delivered under continuous caudal analgesia.

Grade	Cases	Percentage
Excellent.....	153	72.9%
Good.....	23	10.9%
Poor.....	11	5.3%
Failure.....	23	10.9%
TOTAL.....	210	100%

Of the 23 cases of failure fifteen were due to a failure to enter the caudal canal for various reasons. Four failures were due to undetermined causes. Three cases showed reactions to the test dose of such severity that the administration was abandoned without the main injection. One case was discontinued before the test dose was injected due to the recovery of spinal fluid on the initial tap. I have encountered no delayed reactions or later sequellae.

MODERN CONCEPTS OF CARDIOVASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society
C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

It has been the observation of the Committee that there exists in the minds of some physicians confusion regarding etiological factors concerning heart disease and the actual mechanism of heart failure or decompensation. Not infrequently the cause of death is recorded incompletely in fatal heart disease because the physician simply states that heart failure occurred, omitting entirely the original cause of the organic cardiac defects that led to heart failure. Consequently, in this and in the ensuing issue we present a summary of the mechanism of heart failure from "Cardiovascular Concepts" by Maurice B. Visscher, Ph. D., M. D.

Heart Failure

"This discussion will be limited largely to conditions in which an inability of the heart to perform a sufficient amount of work is the primary cause of disability or death. Every fatal disease ultimately involves heart failure, but in this review it will be impossible to consider conditions in which the cardiac disorder is not a primary factor in disability.

Physical Principles

For either of two basic reasons the heart can fail to deliver to the arteries suitable amounts of blood under proper pressures. The heart may have either an inflow rate inadequate to fill it properly in diastole or it may not be able to do the work of expulsion. The first condition results whenever the ratio of blood volume to vascular bed volume decreases, either from loss of blood volume or from vasodilation. The second situation occurs when the heart muscle is unable to perform the mechanical work imposed upon it.

The most fruitful way for the physiologist and the physician to look upon the heart is as a regulated pump-engine. It is never appropriate to ignore the basic nature and function of a body organ in dealing with it from a clinical viewpoint. In the case of the heart this means that the physician dealing with cardiac problems should always orient his thinking with relation to its basic physiology. Pathologic changes in valves, excitation and conduction mechanism, coronary flow, the myocardium and the pericardium each produces its effects by altering the work capacity. Only in so far as the work capacity is or may be

impaired is the pathologic process consequential to the heart itself. Vegetations may, of course, be significant as sources of emboli which may close blood vessels elsewhere.

Two factors determine the work output of any machine, (a) the manner in which it is loaded, and (b) the manner in which energy is supplied to it for performance of work. In the case of the heart the manner of loading depends largely upon two factors, (a) the filling pressure and (b) the arterial pressure. These factors deserve further discussion.

The filling pressure for the heart ultimately depends upon the pressure in the great veins. The pressure in the ventricle at the end of its diastole is, of course, influenced by atrial contraction, but venous pressure determines atrial filling as well as ventricular filling before atrial systole, and therefore controls the ventricular filling due to both processes. The pressure in the great veins is, however, influenced by a variety of factors. The state of contraction of peripheral vessels, especially capillaries and venules, is of first importance. In the absence of heart failure either a dilation of the small veins or a decrease in blood volume causes a lowering of pressure in the great veins. In both of these situations the venous system is relatively too large for the available blood to fill it. But in addition the work capacity of the heart itself influences filling pressure. Whenever the heart becomes unable to eject in systole the volume of blood entering in diastole the residual blood in the heart increases. Each such increment raises the early diastolic intracardiac pressure because the heart is an elastic reservoir. When an elastic bag is distended the pressure within it rises. If the elastic properties of the bag are simple the relation between pressure and volume can be calculated readily from the coefficients of elasticity. The elastic properties of heart muscle are not simple, however.

The heart muscle is a visco-elastic body and shows the phenomenon of hysteresis to a marked degree. As a result the rise in intraventricular pressure occurring with chronic distention is much less than would be anticipated from its coefficient of elasticity before stretching. The phenomenon of hysteresis in heart muscle has been studied extensively. The elasticity of the myocardium falls after the heart has been made to work against heavy loads for some time. Working against high pressure the residual blood increases, as was noted above, and with this the decrease of elasticity occurring as a result of hysteresis is a useful adaptive process because

it prevents the venous pressure from rising as high as it might otherwise do. Elevation of venous pressure beyond that necessary to fill the heart is disadvantageous, since it produces edema and other undesirable effects.

The heart does work more economically against moderate arterial pressures and with high output than it does against high pressures and lower volume outputs. Thus a hypertension is a disadvantage to the heart as a working machine, not simply because the cardiac work is increased by the elevated resistance, but also because the heart is less efficient with high pressure loads.

The Mechanism of Heart Failure

From a fundamental viewpoint an engine, such as the heart, can "fail" to carry a load of work laid upon it for one or both of two reasons. It can so fail either because it cannot liberate energy or because it cannot effectively utilize the energy liberated, or a combination of both. There are no other known possibilities for engine failure. The heart as a pump-engine fails for both of these reasons under various circumstances but ordinarily mainly for the second, namely an inability to utilize liberated energy economically. In other words, heart failure appears ordinarily to be an efficiency failure. These assertions require amplification and supporting evidence.

A very substantial literature exists bearing on experimental heart failure. In eight major pieces of investigation by separate authors all but two workers agree that spontaneous heart failure in experimental animals with isolated or intact hearts is primarily an efficiency failure. One worker has published the results of several experiments purporting to dispute this view. In two experiments this worker observed no change in efficiency with failure, but obtained a progressively declining coronary blood flow in those two instances. A declining coronary flow is not characteristic of failure in other instances. In these cases the myocardium in part or in whole had less oxygen delivered to it and the failure was probably due to that inadequacy. A third published experiment showed an instance in which the oxygen content of the blood fell from 12 to 6 volumes per cent over the period of observation, while the calculated "efficiency" of liberated aerobic energy increased. It has been pointed out that when anaerobic processes occur calculations of "efficiency" from liberation of energy by oxidative processes are meaningless. When a sizable fraction of cardiac contraction energy comes from anaerobic processes the "efficiency" of oxidative work can and does ex-

ceed 100 per cent. Obviously calculations of "efficiency" from oxygen consumption and performed work have meaning only when all energy is derived from oxidation. This is the assumption implicit in all indirect calorimetry and cannot be ignored in studies of the metabolism of the heart. The second worker whose reports cast doubt on the occurrence of failure of efficiency as the usual mode of spontaneous heart failure has employed a fallacious method of measuring oxygen consumption, as has previously been discussed at length. The essence of the fallacy lies in the fact that coronary sinus blood is not a representative sample nor a constant fraction of total coronary blood flow, as was assumed by the worker in question.

In a series of experiments numbering several hundred, in which the total oxygen consumption has been measured, it has been found that unless the coronary flow declines or oxygen tension in the blood falls, the process of failure is associated with a decline in cardiac efficiency as measured by indirect calorimetry in isolated hearts or in the intact animal. Consequently it may be stated with fairly great assurance that in the isolated heart, the heart lung preparation and in the intact animal spontaneous failure and failure induced by anesthetic agents are primarily failures of efficiency, so long as supply of oxygen is adequate for aerobic metabolism.

The Influence of Various Factors on Heart Failure

The most striking reversal of the falling cardiac efficiency in failure is seen upon administration of the cardio-active glycosides. Various glycosides of the digitalis type bring about large increase in the efficiency of the heart. This occurs independent of the heart rate or of changes of the flow of blood in the coronary arteries. It is without doubt the basic reason for the effectiveness of such glycosides in the treatment of the decompensated or decompensating heart because no other effect is known which could favorably influence the performance of the heart in the absence of rate changes, and the regular heart is improved by digitalis in failure, just as the irregular heart is. The intimate mechanism by which digitalis increases the efficiency of the failing heart is unknown. It may not have such an effect, at least for a long period, on the heart of the normal individual. However, this question has never been studied directly. The decreased minute output ordinarily seen in normal subjects after administration of digitalis does not prove an absence of an efficiency effect because the cardiac output is not limited or controlled by efficiency except in failure. In fact, the decrease in the

size of the heart seen after administration of digitalis in normal subjects speaks for a probable increase of efficiency, because the shorter muscle fibers liberate less energy in contraction than do lengthened ones.

The fact that digitalis allows the human heart when decompensated to do more work at a shorter initial fiber length (as measured by maximum diastolic volume) than it does without digitalis, just as is the case in the experimental animal, lends strong support to the view that experimental failure and clinical congestive failure are comparable entities. This point has been questioned by some writers. The complete similarity of reactions in experimental and clinical heart failure with respect to (a) cardiac dilation, (b) elevation of venous pressure, (c) response to digitalis administration, (d) reaction to decreased load, and (e) deleterious effects of increased work by elevated heart rate and elevated inflows and pressures, leads one to feel fairly confident that the two involve chiefly similar processes.

To be sure, human heart failure shows some effects due to its chronicity not seen in an acute experiment. For example, cardiac dilation is usually associated with prior or simultaneous muscular hypertrophy. The latter is a phenomenon requiring the long-time imposition of loads heavier than normal on a myocardial element and does not occur in a day. However, it does occur in experimental animals when cardiac loads are increased as they are increased in the presence of thyroid intoxication or excessive muscular work. Further, it has been shown that there is an increase in what has been called the static blood pressure in patients dying in a state of cardiac decompensation. This has been proposed as a reason for the elevated venous pressure in association with heart failure. However, it must be recalled that tissue edema occurs in heart failure and that the blood vessels may not be able to dilate fully after death from congestive failure because of the excess tissue tension. Such an occurrence would have nothing to do with the primary mechanism of heart failure or its symptoms."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

COMMUNIQUE

Fort Lewis, Washington,
September 21, 1945

To the Editor:

While on my recuperation leave in Clarksville,

I intended to drop in for a visit with you. However, my leave was interrupted after 12 days at home. Now I find myself conducting a 32-hour course in "Disease Problems of the Pacific" for the officers and nurses of six general hospitals who were scheduled for overseas duty. These hospitals are all being inactivated but the commanding general says the course must go on.

This is really beautiful country. Enjoyed catching a few silver trout in one of the nearby lakes.

I really appreciated your letters and The Journal while overseas. My plans for the future are quite indefinite. I may return to Clarksville after a few months. Perhaps I shall have opportunity to see you in Fort Smith before long.

Sincerely,

Hartman Johnson,
Lt. Col., M. C.

OBITUARY

FRANCIS FENWICK YOUNG, SR., founder and physician-in-chief of the Fenwick Sanitarium, Covington, Louisiana, 82 years of age, died September 26th after a long illness. Born in Abbeville, Louisiana, he graduated from the Tulane University of Louisiana in 1884 and early turned his attention to psychiatry and the problems of the alcohol and drug addict. He established the Fenwick Sanitarium in Abbeville in 1892 and moved the institution to Covington in 1912. Active in the affairs of the medical profession he was a member of his parish and state medical society, the Southern Medical Association and a fellow of the American Medical Association. Surviving relatives are a daughter and five sons.

WOODYE ALBERT WINTER, age 64, of Widener, died in a Hot Springs hospital September 29th. A graduate of Memphis Hospital Medical College in 1910, he had practiced in Saint Francis County for 35 years. He served in the army medical corps during World War I and was regimental surgeon of the 206th Coast Artillery (A-a), Arkansas National Guard from 1920 to 1925. Surviving relatives are his wife and a daughter.

JAMES WALTER SEXTON, age 58, died at his home in Dover October 4th. A graduate of the University of Tennessee College of Medicine in 1915, he had practiced in Yell County since graduation. He was a member of the Pope-Yell County Medical Society. Surviving relatives are his wife, two daughters and a son.

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*Atkinson, H. H. USA
 *Barnes, L. C. Hamburg
 Boykin, S. R. Crossett
 *Burt, E. G. USA
 *Cockerham, H. E. Portland
 Cone, A. E. Portland
 *Crandall, M. C. Wilmot
 Davis, Elmer L. Crossett
 Hawkins, M. C. Parkdale
 Mask, D. L. Crossett
 Matthews, James M. Morrilton
 Moseley, J. H. USA
 Parker, J. L. Snyder
 *Regnier, W. A. USA
 Rice, James C. Crossett
 Smith, D. V. Crossett
 Smith, M. L. Crossett
 Spivey, C. E. Crossett
 *White, E. O. Hamburg
 Wood, J. T. Crossett

BENTON COUNTY

Atkinson, R. M. Bentonville
 *Baker, H. C., Jr. USN
 Chastain, M. W. USA
 Curry, W. J. Rogers
 DeBolt, G. C. Rogers
 Duckworth, F. M. Siloam Springs
 Estes, Neal D. Rogers
 Eubanks, F. G. Decatur
 *Greene, L. O. Pea Ridge
 Gullledge, J. F. Siloam Springs
 Harrison, A. J. Springdale
 Highfill, E. J. Cave Springs
 Hodges, Guy *Rogers
 Hughes, G. A. Siloam Springs
 Huskins, J. D. USA
 Love, Geo. M. Rogers
 Moore, W. A. Rogers
 Peacock, A. L. Gentry
 Pickens, James L. USA
 Pickens, W. A. Bentonville
 Thompson, A. W. USA
 Thompson, J. S. Gravette
 Williams, J. R. Siloam Springs
 Wilson, C. S. Siloam Springs

BOONE COUNTY

*Adams, A. V. Yellville
 Blackwood, J. C. Western Grove
 Bradley, W. A. Harrison
 *Fowler, Ross Harrison
 Frailey, D. M. G. Harrison
 Gladden, J. C. USA
 *Gladden, J. G. Harrison
 *Jackson, Ulys USA
 Kirby, H. V. USA
 Morrow, J. J. Cotter
 McCoy, O. B. USA
 *Owens, D. L. Harrison
 Poynor, M. H. Harrison
 *Rust, M. E. Harrison
 Thompson, James I. Yellville
 Weast, L. M. Yellville
 Watkins, W. L. Alpena Pass

BRADLEY COUNTY

Belcher, Charles D. USN
 Crow, Marvin B. USA
 Crow, Marvin T. Warren
 Crow, Merle T. USA
 Higginson, John M. St. Louis
 *Hunf, W. J. Warren
 Martin, Rufus Warren
 Reasons, W. B. Hermitage
 Roark, W. N. Hermitage

CARROLL COUNTY

Bohannon, J. H. Berryville
 Butt, W. A. Green Forest
 *Carter, A. L. Berryville
 Donaldson, C. W. Green Forest
 John, J. F. Eureka Springs
 *McCurry, D. K. Green Forest
 Newkirk, W. H. USA

The Roster of the Arkansas Medical Society has been placed in the center of this issue to permit its ready removal for filing.

Roberts, D. C. Berryville
 Webb, J. H. Eureka Springs

CHICOT COUNTY

Baker, E. E. Dermott
 *Barlow, B. E. Dermott
 *Barlow, E. E. Dermott
 *Bottorff, M. K. Lake Village
 *Burge, J. H. Lake Village
 Clark, B. C. Lake Village
 Craig, W. A. Eudora
 Douglas, S. W. Eudora
 Easterling, Walter D. USA
 McGehee, E. P. Lake Village
 *Thompson, J. A. Dermott

CLARK COUNTY

Barnett, J. R. Arkadelphia
 Bremer, J. P. Point Cedar
 Bryant, R. L. Arkadelphia
 Doane, S. N. Arkadelphia
 McLain, J. T. Gurdon
 Norton, J. M. Arkadelphia
 Pate, J. N. Arkadelphia
 Reid, Joe W. Arkadelphia
 Townsend, Chas. K. Arkadelphia

CLAY COUNTY

Blackwood, W. J. Rector
 Clopton, O. H. Rector
 Futrell, J. B. USA
 Hiller, J. P. Pollard
 Jones, F. H. Piggott
 Latimer, N. J. Corning
 McGuire, J. E. Piggott
 Turner, W. E. USA
 Turner, W. E. Sr. Piggott

CLEVELAND COUNTY

Dunman, B. E. New Edinburg
 Hancock, W. G. Rison
 Johnson, S. C. Kingsland
 Scroggin, J. H. Kingsland

COLUMBIA COUNTY

Baker, J. J. Magnolia
 Brandon, C. W. Emerson
 Carrington, H. K. Magnolia
 Hunt, W. J. Magnolia
 Horn, W. H. Magnolia
 Jones, T. H. Waldo
 Jordan, J. S. Magnolia
 Kitchens, H. M. Waldo
 Longino, L. A. Magnolia
 McLeod, G. F. Magnolia
 Rushton, J. F. Magnolia
 Smith, P. M. Magnolia
 Souter, A. J. Waldo
 Souter, T. E. McNeil
 Weber, Chas. L. USA
 Wilson, J. H. Magnolia

CONWAY COUNTY

Close, Edgar Jerusalem
 Etheridge, C. E. Morrilton
 Halbrook, J. F. Plumerville
 Hardison, T. W. Morrilton
 Mobley, H. E. Morrilton
 Jones, R. A. Perry
 Williams, C. R. USA

CRAIGHEAD-POINSETT COUNTY

Alcott, Geo. B. Weiner
 Barrett, E. R. USN
 Berry, W. E. USA
 *Blanton, M. E. USA
 Burge, H. G. Nettleton
 *Cohen, O. T. Jonesboro
 Cooper, James O. USN
 Dickerson, D. A. Marked Tree
 *Ellis, Ira W. Monette
 Faris, John C. USA
 Harris, Chas. P. USA
 Hartwig, C. D. Lake City
 Horner, E. J. Jonesboro
 Jones, J. H. Lepanto
 *Jones, J. K. Lepanto
 Ledbetter, Jos. W. Jonesboro
 *Lutterloh, P. W. Jonesboro

*McAdams, H. H. Jonesboro
 *McCurry, J. H. Cash
 *McDaniel, E. C. Tyrnza
 *McDaniel, L. H. Tyrnza
 *Modelevsky, A. C. Jonesboro
 Moreland, W. H. Tyrnza
 Nisbett, Frank Brookland
 Overstreet, W. C. Jonesboro
 Pierce, J. O. USA
 Ramsey, J. W. Jonesboro
 Reagan, C. H. Marked Tree
 Shanlever, R. C. Jonesboro
 Shepherd, W. F. Jonesboro
 *Sloan, Ralph M. Jonesboro
 Smith, O. V. Trumann
 Smith, W. H. Bono
 *Stroud, E. J. Jonesboro
 *Stroud, H. A. Jonesboro
 *Stroud, P. T. USN
 *Thorn, W. T. Marked Tree
 Tullos, A. M. Trumann
 Verser, Joe USA
 *Verser, W. W. Harrisburg
 *Willett, R. H. Jonesboro

CRAWFORD COUNTY

Bennett, B. L. Van Buren
 *Bruce, B. B. Alma
 Boomer, F. A. Van Buren
 Campbell, C. J. Mulberry
 Crigler, J. R. Alma
 Dixon, Chas. B. Van Buren
 Galloway, O. R. Alma
 Grant, S. C. Mulberry
 Kirkland, S. D. Van Buren
 Kirkland, S. S. USA
 Kirksey, O. J. Mulberry
 Porter, James O. Oklahoma City, Okla.
 Savery, H. W. Van Buren

CRITTENDEN COUNTY

*Bond, S. D., Jr. USN
 *Hare, T. S. Crawfordsville
 *Irby, J. T. Earle
 McVay, L. C. Marion
 Parker, A. C., Sr. Clarksdale
 Parker, A. C., Jr. USA
 Purnell, R. L. Marion
 *Ray, Robert H. Earle
 *Stevenson, B. M. West Memphis

CROSS COUNTY

Barr, A. F. Cherry Valley
 Griffin, W. L. Cherry Valley
 Hickman, R. L. Hickory Ridge
 Longest, Ruffin Wynne
 Miller, J. S. Wynne
 Peterson, T. A. Wynne
 Price, Thomas G. USN
 Smith, R. S. Parkin
 Wilson, Thomas Wynne

DALLAS COUNTY

Cheatham, H. A. Princeton
 Ellis, W. S. Fordyce
 Estes, E. E. Fordyce
 Estes, S. J. Fordyce
 Lisenbee, A. M. Sparkman
 Taylor, J. E. M. Sparkman
 Ward, W. P. USA

DESHA COUNTY

*Biscoe, Gibbs Dumas
 Biscoe, Goree Dumas
 Hellums, J. H. Dumas
 Kimbro, C. H. Tillar
 *Leverett, Marion McGehee
 MacCammon, Vernon Arkansas City
 Moss, Swan McGehee
 *Rands, H. A. Dumas
 *Smith, H. T. McGehee
 *White, R. F. McGehee

DREW COUNTY

*Billingsley, Lindsey F. Monticello
 Binns, B. Z. USA
 *Collins, A. S. J. Monticello
 Dickens, Robert D. USA
 Gates, Stanley M. USA
 Holder, J. B. USA
 Pope, M. Y. Monticello
 Price, J. P., Jr. Monticello
 Wilson, J. S. Monticello

FAULKNER COUNTY

Archer, C. C., Jr. Conway
 Baldridge, Doris A. Key West, Fla.
 Baldridge, Max USN
 *Brittain, W. L. Conway
 Brooke, H. C. USA
 Dawson, R. L. Bee Branch
 Downs, J. H. Vilonia
 Dunnaway, E. L. USA

Dunnaway, L. S. ... Conway
 Fraser, N. E. ... Conway
 Harrod, George ... Conway
 Ingram, E. M. ... Enola
 Kitley, J. R. ... Mayflower
 Lieblong, J. S. ... Greenbrier
 Mabry, Tom ... Vilonia
 McCollum, I. N. ... Conway
 Taylor, R. L. ... Conway

FRANKLIN COUNTY

Bollinger, W. H. ... Charleston
 *Gibbons, W. H. ... Ozark
 Jewell, I. H. ... Paris
 *Pillstrom, E. W. ... Ozark
 *Porter, W. C. ... Ozark

GARLAND COUNTY

*Adams, Frank M. ... USA
 Bieri, E. J. ... USA
 Black, T. N. ... Hot Springs
 Blackshare, W. M. ... Hot Springs
 *Bollmeire, L. N. ... Hot Springs
 Bowman, M. B. ... USA
 *Boydstone, J. O. ... USA
 Brewer, Howell ... USA
 Browning, E. R. ... Hot Springs
 Buckelew, H. H. ... USA
 Burch, N. B. ... Hot Springs
 Burton, F. M. ... Hot Springs
 Casada, B. F. ... Hot Springs
 *Chamberlain, W. W. ... USA
 *Chestnutt, J. H. ... Hot Springs
 Clardy, Floyd ... Hot Springs
 Coffey, G. C. ... Hot Springs
 Connell, W. H. ... Hot Springs
 Diederich, V. P. ... Hot Springs
 *Ellis, Jack R. ... USA
 *Fletcher, Geo. B. ... Hot Springs
 Garratt, C. E. ... Hot Springs
 *Gray, W. E. ... Hot Springs
 *Hebert, Gaston A. ... USN
 Jarrell, Foster ... Hot Springs
 *King, O. H. ... Hot Springs
 Klugh, W. G. ... Hot Springs
 *Lee, D. C. ... Hot Springs
 *Lutterloh, C. H. ... USA
 Martin, L. G. ... Hot Springs
 McKenzie, E. M. ... Hot Springs
 Moss, C. S. ... Hot Springs
 Nims, C. H. ... Hot Springs
 Pate, C. N. ... Hot Springs
 Porter, W. F. ... Hot Springs
 *Power, A. R. ... Hot Springs
 Proctor, J. M. ... Hot Springs
 *Purdum, E. A. ... Hot Springs
 *Reed, L. E. ... Hot Springs
 *Rowland, Driver ... USA
 Rowland, J. F. ... Blytheville
 Rushing, F. E. ... Hot Springs
 Scott, Jeff O. ... USA
 Scully, F. J. ... Hot Springs
 Shaw, E. I. ... Hot Springs
 Shebesta, Bessey H. ... Hot Springs
 Short, Z. N. ... Hot Springs
 *Smallwood, R. E. ... USA
 *Smith, E. M. ... USA
 *Smith, O. A. ... Hot Springs
 *Smith, W. K. ... Hot Springs
 Stell, J. S. ... Hot Springs
 Stough, D. B. ... Hot Springs
 Strachan, J. B. ... Hot Springs
 *Sullivan, A. G. ... USN
 *Tarleton, F. S. ... Hot Springs
 Tribble, A. H. ... Hot Springs
 *Thompson, E. L. ... Hot Springs
 Ulferis, U. R. ... USA
 *Wade, H. K. ... Hot Springs
 Wade, H. K., Jr. ... Hot Springs
 *Weil, S. D. ... Hot Springs
 Wilkins, J. S. ... Hot Springs
 Wright, H. K. ... Hot Springs

GRANT COUNTY

Cole, C. F. ... Prattsville
 Cole, John W. ... Sheridan
 Hope, O. W. ... Sheridan
 Kelly, M. F. ... Sheridan
 Kelly, O. R. ... Sheridan
 Kelly, R. M. ... Sheridan

GREENE COUNTY

Blackwood, J. D. ... Jonesboro
 Bridges, G. P. ... Paragould
 Dillman, J. A. ... Paragould
 Ellington, W. E. ... Paragould
 Haley, R. J., Jr. ... Paragould
 Huddins, J. J. ... Paragould
 Hutcherson, R. L. ... Delaplaine
 Lamb, J. W. ... USA
 Lamb, W. M. ... Paragould
 McKelvey, Earle ... Paragould

HEMPSTEAD COUNTY

*Branch, J. W. ... Hope
 Cannon, G. E. ... Hope
 Carrigan, P. B. ... Hope
 Gentry, J. E. ... Hope
 Heller, H. G. ... McCaskill
 Holt, H. H. ... Hope
 *Lile, L. M. ... USA
 *Martindale, J. G. ... Hope
 *McKenzie, Jim ... Hope
 Robins, W. F. ... Ozan
 *Smith, Don ... Hope

HOT SPRING COUNTY

*Barrier, W. F. ... Malvern
 Blakely, G. W. ... Malvern
 *Brown, H. L. ... Malvern
 *Hodges, T. L. ... Bismarck
 *Hodges, W. G. ... Malvern
 McCray, E. H. ... Malvern
 *McCray, R. V. ... Malvern
 *Pool, C. S. ... Malvern
 Prickett, M. D. ... Iowa City, Iowa

HOWARD-PIKE COUNTY

Alford, T. F. ... Murfreesboro
 Burleson, J. J. ... Antone
 Dildy, E. V., Sr. ... Nashville
 Dildy, E. V., Jr. ... Mineral Springs
 Duncan, M. D. ... Murfreesboro
 Gould, W. B. ... Glenwood
 Simpson, W. B. ... Nashville
 Toland, Wm. H. ... Nashville
 Trice, Spencer T. ... Dierks
 Waldrop, J. G. ... Nashville

INDEPENDENCE COUNTY

Barger, O. B. ... USA
 Barnett, J. C. ... USA
 *Bone, O. L. ... Newark
 Brown, H. H. ... Charlotte
 Calaway, W. H. ... USA
 Chambers, S. W. ... Mountain Home
 Churchill, C. A. ... USA
 Copp, Noel ... Calico Rock
 *Craig, M. S. ... Batesville
 *Evans, L. T. ... Batesville
 Gray, E. M. ... Mountain Home
 Gray, W. Paul ... Batesville
 Harris, C. L. ... Melbourne
 *Hinkle, C. G. ... Batesville
 *Jeffery, Paul H. ... Bethesda
 *Johnston, O. J. T. ... Batesville
 *Ket, W. J. ... Batesville
 Matthews, J. T. ... Heber Springs
 McAdams, V. D. ... Cord
 *Monfort, J. J. ... USA
 *Robertson, S. N. ... Sulphur Rock
 Roe, C. E. ... Viola
 Weathers, J. L. ... Salem
 Weddington, R. E. ... USA
 Wood, O. S. ... Salem
 *Wyatt, F. Q. ... Batesville

JACKSON COUNTY

Best, A. L. ... Newport
 Elton, A. M. ... Newport
 Erwin, Ira H. ... Newport
 Gray, C. R. ... Newport
 Harris, M. L. ... Newport
 Ivy, J. B. ... Tuckerman
 Jamison, O. A. ... Tuckerman
 Justus, Shelby ... Swifton
 Kimberlin, K. K. ... Tuckerman
 Norris, R. O. ... Tuckerman
 Walker, H. O. ... Newport

JEFFERSON COUNTY

*Beard, J. C. ... Pine Bluff
 Binns, Van C. ... USA
 *Bruce, W. H. ... Pine Bluff
 Capel, C. B. ... Pine Bluff
 *Capel, H. T. ... Pine Bluff
 Carruthers, C. K. ... Pine Bluff
 *Causey, H. A. ... USA
 *Clark, O. W. ... Pine Bluff
 *Cunningham, T. J. ... Pine Bluff
 Cunningham, J. T., Jr. ... Pine Bluff
 Garratt, A. A. ... Pine Bluff
 *Hames, Fred ... Pine Bluff
 Higinbotham, C. ... Pine Bluff
 *Jenkins, J. S. ... Pine Bluff
 *Lowe, W. T. ... Pine Bluff
 *Luck, B. D., Jr. ... Pine Bluff
 Luck, B. D., Sr. ... Pine Bluff
 *Maynard, R. E. ... USA
 *McMullen, E. C. ... Pine Bluff
 Morris, Harold J. ... Pine Bluff
 Palmer, J. T. ... Pine Bluff
 *Payne, Virgil ... Pine Bluff
 *Reid, Chas. W. ... Pine Bluff
 Robertson, A. B. ... Rison
 Russell, A. R. ... USA
 Shelton, M. A. ... Wabbaseka

Simmons, Walter H. ... Pine Bluff
 *Spillyards, J. S. ... Pine Bluff
 *Walker, John K. ... Pine Bluff
 Woods, R. P. ... Altheimer

JOHNSON COUNTY

Burgess, M. E. ... Miami, Arizona
 Floyd, John ... Oark
 Graves, S. M. ... Clarksville
 *Hardgrave, Geo. L. ... Clarksville
 *Hunt, Earle H. ... Clarksville
 *Johnston, R. H. ... USA
 King, R. E. ... Harmony
 *Kolb, J. M. ... USA
 Nicholas, J. P. ... Hagarville
 *Shrigley, Guy P. ... USA
 *Siegel, G. R. ... Clarksville

LAFAYETTE COUNTY

Armstrong, R. L. ... Lewisville
 Baker, F. E. ... Stamps
 Keith, A. W. ... Stamps
 McKnight, J. F. ... Bradley

LAWRENCE COUNTY

Ball, C. C. ... Ravenden
 Blaine, Mitchell ... Mammoth Springs
 Brown, W. W. ... Coal Mountain, W. Va.
 Cruse, E. J. ... Black Rock
 Elders, J. B. ... USA
 Faircloth, Robert S. ... Walnut Ridge
 Guthrie, T. C. ... Smithville
 Hatcher, W. W. ... Imboden
 Henderson, A. G. ... Imboden
 Hughes, Mak ... Walnut Ridge
 Hull, H. B. ... Mammoth Springs
 Jackson, J. F. ... USA
 Johnson, T. Z. ... Walnut Ridge
 Kendall, W. S. ... Cave City
 Land, J. C. ... Walnut Ridge
 Tibbels, C. C. ... Black Rock
 Townsend, C. C. ... Walnut Ridge

LEE COUNTY

Bogart, H. D. ... Marianna
 Chaffin, C. W. ... Moro
 Crawford, W. S. ... Marianna
 Hammer, J. H. ... Aubrey
 *Hodge, N. C. ... Marianna
 McClendon, Mac ... Marianna

LINCOLN COUNTY

Bailey, B. L. ... Star City
 *Dixon, C. W. ... Gould
 *Gardner, B. M. ... Star City
 Taylor, L. T. ... USN
 Thiolliers, A. C. ... North Little Rock
 Thomas, H. W. ... USA
 Wood, G. C. ... Grady

LITTLE RIVER COUNTY

Harding, C. A. ... Ashdown
 *Peacock, Norman W. ... Ashdown
 Yates, E. W. ... Foreman

LONOKE COUNTY

Beaty, S. S. ... England
 Brewer, J. F. ... Kerrs
 Callahan, E. A. ... Carlisle
 Corn, F. A. ... Lonoke
 Crowgey, W. B. ... Scott
 Southall, S. A. ... Lonoke
 Ward, O. D. ... England
 Wells, J. B. ... Little Rock
 Whaley, E. S. ... Carlisle

MILLER COUNTY

Abrams, H. K. ... USPHS
 Boone, R. F. ... Texarkana
 Burnett, J. W. ... USA
 *Daniel, N. B. ... Texarkana
 *Daubs, W. H. ... Foreman
 Frank, C. H. ... Texarkana
 Fuller, T. E. ... Texarkana
 Good, L. P. ... Texarkana
 *Hibbitts, Wm. ... Texarkana
 Hunt, Preston ... Texarkana
 Kemp, K. H. ... USA
 *Kirkpatrick, R. R. ... Texarkana
 *Kittrell, T. F. ... Texarkana
 *Kosminsky, L. J. ... Texarkana
 *Lanier, L. H. ... Texarkana
 *Lee, A. G. ... Texarkana
 Mann, Albert H. ... Texarkana
 Middleton, B. C. ... Texarkana
 *Murry, H. E. ... Texarkana
 Parson, G. W. ... Texarkana
 Pickett, R. W. ... Texarkana
 Porter, J. T. ... USA
 Priest, Perry ... Texarkana
 Robins, R. R. ... Texarkana
 Smith, W. D. ... Texarkana
 *Tate, J. B. ... Texarkana
 Williams, J. F. ... Texarkana

MADISON COUNTY

*Counts, G. D. Wesley
 Martin, C. J. Hindsville
 Youngblood, Fred Huntsville

MISSISSIPPI COUNTY

Atkinson, G. S. Blytheville
 Beasley, J. E. USN
 Brownson, J. F. Leachville
 Budd, E. C. Blytheville
 Campbell, J. H. Marvell
 Dorman, J. W. USA
 Ellis, N. B. Wilson
 Harwell, C. M. Osceola
 Hassell, L. L. USA
 Hosey, N. R. Marvell
 Hollingsworth, G. F. Dyess
 Hubener, L. L. Blytheville
 Hudson, T. F. Luxora
 Husband, F. L. Blytheville
 Johnson, I. R. Blytheville
 Johnson, R. L. Bassett
 Mahan, T. K. USA
 Massey, L. D. Osceola
 Moseley, K. T. USA
 Polk, J. T. Keiser
 *Robinson, A. E. Leachville
 *Robinson, H. D. Manila
 Saliba, J. A. Blytheville
 Shedd, W. J. Osceola
 Sims, H. C. USA
 Skaller, M. L. Blytheville
 Stevens, C. C. Blytheville
 Turrentine, P. W. Osceola
 Walls, J. M. USA
 Webb, Floyd Blytheville
 Wilson, C. E. Blytheville

MONROE COUNTY

*Boswell, W. L. Clarendon
 *Bradley, W. T. Blackton
 *Dalton, M. L. Brinkley
 *Martin, W. H. Holly Grove
 *McKnight, C. H. Brinkley
 *McKnight, E. D. Brinkley
 Mohler, D. A. Brinkley

MONTGOMERY COUNTY

Freeman, W. D. Mt. Ida
 McLean, J. H. Caddo Gap
 Stueart, J. B. Norman
 Watkins, G. E. Mt. Ida

NEVADA COUNTY

*Buchanan, A. S. Prescott
 Cox, J. E. Rosston
 Hairston, G. G. USA
 *Hesterly, J. B. Prescott
 *Hirst, O. G. USA
 *Kennedy, J. W. USA
 McDaniel, T. W. Boughton
 Pool, W. B. H. Bodcaw
 *Rouse, B. H. Prescott

OUACHITA COUNTY

*Byrd, J. E. Camden
 *Clemens, J. P. Stephens
 *Dalton, Perry USN
 *Early, C. S. Camden
 *Jameson, J. B. Camden
 *Kennerly, R. C. Camden
 *Magness, W. C. USA
 McAllister, J. P. Camden
 *McGill, S. D. Camden
 Miller, John H. Camden
 *Partee, N. G. Camden
 Plunkett, C. M. Elliott
 *Powell, B. V. Camden
 *Rhine, T. E. Thornton
 *Rhinehart, J. S. Camden
 *Robins, R. B. Camden
 *Robins, R. R. Camden
 Rushing, J. L. Chidester
 Thompson, H. F. Bearden
 *Thompson, S. A. Camden
 Thompson, S. B. USA

PHILLIPS COUNTY

Baker, J. P. West Helena
 Blackwood, J. O. USA
 Butt, J. W. Helena
 Connolly, W. B. Helena
 Cox, A. E. Helena
 Cox, A. W. Helena
 Dozier, F. S. Wilson
 Ellis, J. B., Sr. Albuquerque, N. M.
 Ellis, W. A. Helena
 Fink, M. Helena
 Johnston, W. W. USA
 King, Jack USA
 *King, W. C. Helena
 Kulgen, Edward Elaine
 Maddox, A. H. USA
 Nicholls, J. W. Helena
 Norton, E. F. Marvell

Rightor, H. H. Helena
 Russwurm, W. C. Helena
 Storm, Geo. R. West Helena

POLK COUNTY

Campbell, C. A. Mena
 Hawkins, B. H. Mena
 Lee, F. A. Vandervoort
 *Miers, E. M. Mena
 Norwood, Frank A. Seattle, Wash.
 *Redman, Pierre Mena

POPE-YELL COUNTY

Ballenger, W. E. Plainview
 Berryman, L. D. Russellville
 Cale, Walter Atkins
 Gardner, Ellis Russellville
 Gardner, L. Russellville
 Gilliam, A. D. Belleville
 Grace, Kent Belleville
 Griffin, E. P. USA
 Henry, J. A. State Sanatorium
 Hood, Robert Russellville
 Hornsby, W. H. Ola
 Hoyt, Jonathan Waldron
 Hunt, E. C. Ola
 Millard, Roy I. Russellville
 Montgomery, H. L. Gravelly
 Moore, J. H. Delaware
 *Sexton, J. W. Dover
 Smith, L. M. Russellville
 Smith, R. L. Russellville
 Stanford, J. M. Russellville
 Tate, A. B., Sr. Russellville
 Teeter, Brooks R. USA
 Young, W. O. Jr. Russellville

PRAIRIE COUNTY

Adams, Edward DeValls Bluff
 Calley, J. H. USA
 Crockett, W. H. Biscoe
 Gilliam, J. C. Des Arc
 Lynn, J. R. Hazen
 Parker, W. M. USA
 Porter, T. G. Hazen

PULASKI COUNTY

*Aday, J. Leo USA
 Agar, John S. USN
 Alford, T. Dale USA
 *Allen, H. R. Little Rock
 Almaden, Phillip J. Little Rock
 Anderson, C. C. Little Rock
 *Anderson, P. R. USA
 *Arkebauer, C. Little Rock
 Atkinson, Shelby North Little Rock
 *Autry, D. H. USA
 *Autry, P. G. Little Rock
 Banks, Jeff Little Rock
 *Barrier, L. F. Little Rock
 Beasley, Grace Allnutt Arcadia, Fla.
 *Bennett, B. A. USA
 *Bizzell, Ross USA
 *Blakely, R. M. Little Rock
 *Blankford, Gerald USA
 Boyle, R. M. USA
 *Briggs, B. P. USA
 *Brooks, C. M. Little Rock
 Brown, Martha M. Little Rock
 *Brown, T. D. USA
 Burgess, T. E. Little Rock
 Burns, W. M. Little Rock
 Byrd, L. M. USA
 Calcote, R. J. Little Rock
 Caldwell, Robert Little Rock
 Carangelo, John Little Rock
 Carruthers, F. W. Little Rock
 Cazort, Alan J. Little Rock
 Champion, J. P. USN
 Cheairs, D. T. Little Rock
 Chesnutt, C. R. Little Rock
 Chesnutt, C. R., Jr. USA
 *Choate, H. L. Little Rock
 Church, B. L. North Little Rock
 Clark, A. C. Little Rock
 *Compton, J. N. Little Rock
 Coon, A. B. Little Rock
 Cook, R. C. USN
 Cooper, Wm. G. Little Rock
 *Cope, E. P. USA
 *Cosgrove, K. W. Little Rock
 Craig, M. S., Jr. Rochester, Minn.
 *Crawford, J. B. Little Rock
 Crawford, S. R. Crossett
 Crawley, Eugene H. Little Rock
 Cull, S. T. W. Little Rock
 *Cullen, P. T. USA
 *Cummins, Bryce Little Rock
 *Cunningham, J. C. Little Rock
 Darby, Wm. J. Nashville, Tenn.
 Darnall, R. F. Little Rock
 Davis, J. C. Little Rock
 *Day, E. O. Little Rock

*Day, Paul L. Little Rock
 *Dean, G. O. USN
 Dibrell, J. L. Little Rock
 Dibrell, J. R. Little Rock
 Dishongh, Elizabeth F. USN
 Dishongh, H. A. Little Rock
 *Donaldson, J. K. Little Rock
 Dykstra, D. W. USPHS
 *Easley, E. J. Little Rock
 *Eaton, J. P. USA
 Eschweiler, Paul C. Little Rock
 *Eubanks, R. M. Little Rock
 Fatherree, L. L. Lincoln, Nebr.
 Ferguson, R. L. Baltimore, Md.
 Fowler, H. D. USA
 Freedman, Theo. Little Rock
 Fuller, H. A. USA
 *Fulmer, D. W. Little Rock
 *Fulmer, P. M. Little Rock
 Fulmer, S. C. Little Rock
 Gann, Dewell Benton
 *Gay, E. C. Little Rock
 Gerber, W. F. Little Rock
 Goodman, R. T. USA
 Gordon, Vida Little Rock
 *Gray, A. F. Little Rock
 *Gray, Oscar Little Rock
 Grayson, W. B. Little Rock
 Greutter, J. E. USA
 *Hardeman, D. R. USA
 Harrell, W. B. USA
 Harris, F. W. Little Rock
 Harris, Robert P. Sarasota, Fla.
 *Hayes, J. D. USA
 *Hayes, J. H. Little Rock
 *Henry, C. R. Little Rock
 Herron, John T. Little Rock
 *Higgins, H. A. USA
 Hill, Harlan H. USA
 *Hollenberg, H. G. USA
 *Hollis, N. T. Little Rock
 Holmes, G. M. Little Rock
 Holmes, H. C. USA
 Holt, L. G. USA
 Hoover, P. W. USA
 Hundley, John M. USN
 *Hundling, H. W. Little Rock
 Hyatt, C. L. Little Rock
 *Hyatt, D. T. Little Rock
 Hyatt, R. F. USA
 Jackson, Robert H. USA
 *Johnson, Glen H. USA
 *Jones, H. Fay H. Little Rock
 *Jones, J. E. Little Rock
 Junkin, Ruth H. Little Rock
 Junkin, S. P. Little Rock
 Kilbury, M. J. Little Rock
 Kolb, A. C. Little Rock
 Kolb, Agnes C. Little Rock
 Kolb, B. T. Little Rock
 *Kory, R. C. Little Rock
 *Lamb, W. A. Little Rock
 *Langston, W. C. Little Rock
 *Law, R. A. Little Rock
 *Lawson, Mason Little Rock
 Levy, J. S. USA
 Lewandoski, Martha S. Little Rock
 Lewis, G. V. Little Rock
 Lewis, H. C. Little Rock
 Lyons, V. E. USA
 *Mahoney, Paul L. Little Rock
 *Martin, A. B. USA
 *May, C. B. Little Rock
 Mazzanti, Vincent Little Rock
 *McCaskill, M. E. Little Rock
 McCaskill, R. E. USN
 McClain, M. D. USA
 *McLochlin, R. E. USN
 *McMillan, Lamar Little Rock
 McPheeters, J. M. USN
 McRae, W. M. Little Rock
 *Means, Ben D. USA
 *Melson, Madeline Little Rock
 Melson, O. C. Little Rock
 Moore, R. D. USA
 Morgan, Vern E. Little Rock
 Morgans, Dollie USA
 Morris, H. J. USA
 *Murphey, Pat Little Rock
 *Newman, W. V. Little Rock
 Nisbett, J. M. USA
 Nixon, Ewing USA
 Nowlin, W. A. Roland
 *Oates, Chas. E. North Little Rock
 *Oates, Gordon P. Arkansas City, Kan.
 *Parsons, J. E. Little Rock
 Parsons, W. R. USA
 Patterson, R. Q. Little Rock
 Peters, Leo E. USA

Phillips, Bert L. Little Rock
 Phillips, Sam USA
 Phipps, W. E. USA
 Raley, B. V. USN
 Raney, T. J. Little Rock
 Reagan, G. W. Little Rock
 *Reagan, L. D. Little Rock
 *Reaves, B. J., Jr. Little Rock
 *Reed, C. C., Jr. USA
 *Reed, C. C., Sr. Little Rock
 Reed, Enoch R., Jr. Little Rock
 *Rhinehart, B. A. Little Rock
 *Rhinehart, D. A. Little Rock
 *Rhyne, J. T. USA
 *Richardson, W. R. Little Rock
 *Riegler, N. W. Little Rock
 Riggins, W. C. New York, N. Y.
 Ritchey, Lloyd F. USA
 Ritchie, E. J. USA
 *Roberts, J. N. USA
 *Robinson, B. L. Little Rock
 *Rodgers, Clyde D. USA
 *Rosenbaum, Carl A. Little Rock
 Ross, T. T. Little Rock
 *Rowland, R. E. Little Rock
 Ruff, Horace E. Little Rock
 *Sadler, W. L. Little Rock
 Samuel, John USA
 *Sanderlin, J. H. Little Rock
 Sanford, S. M. Little Rock
 Savage, H. W. USA
 Saxon, R. L. Little Rock
 *Schwander, Howard Little Rock
 *Schwarz, W. J. Little Rock
 *Shipp, A. C. Little Rock
 *Shipp, Harvey USN
 *Shuffield, J. F. Little Rock
 Shukers, C. F. USA
 Slaughter, Pauline K. State Sanatorium
 Sleet, J. A. Little Rock
 Smith, H. H. USA
 Smith, John M. Little Rock
 *Smith, John W. Little Rock
 Smith, Joseph S. USA
 *Smith, R. T. Little Rock
 Smith, W. M. USA
 *Snodgrass, Wm. A. Little Rock
 *Sparks, A. R. Little Rock
 *Spitzberg, Irving J. Little Rock
 Stathakis, John USA
 *Stern, Howard S. Little Rock
 Steinkamp, G. R. USA
 Stover, A. R. Holbrook, Ariz.
 Strauss, A. W., Sr. Little Rock
 Strauss, A. W., Jr. USA
 *Summers, J. A. Little Rock
 *Switzer, D. W. North Little Rock
 Thomas, P. E. USA
 *Thompson, E. I. Little Rock
 Thompson, G. D. Little Rock
 *Thompson, Robert L. Little Rock
 Turnbow, R. L. USA
 Wallis, Charles Little Rock
 Warden, J. R. Little Rock
 Washburn, A. M. USA
 Watkins, John G. Little Rock
 Warford, Walton R. USA
 Watson, Asa C., Jr. USA
 Watson, C. F. Little Rock
 *Watson, C. Robert Little Rock
 Wayman, A. K. Little Rock
 *Wayne, J. R. Little Rock
 Webb, V. T. Little Rock
 *Weny, N. F. Little Rock
 *Whittier, R. W. Little Rock
 *Wickard, C. P. USA
 Wilcox, L. A. Little Rock
 *Wilkes, E. Hays USA
 Wood, John P. Little Rock
 *Young, R. G. USA

RANDOLPH COUNTY

Baltz, M. A. Pocahontas
 Brown, J. W. Pocahontas
 Finney, C. Maynard
 Hamil, W. E. Pocahontas
 Loftis, J. R. Pocahontas
 Loftis, W. O. USA
 Ryburn, J. W. Pocahontas
 Smith, J. E. Reyno
 Smith, R. O. Biggers

ST. FRANCIS COUNTY

Bogart, C. N. USA
 Burch, W. D. Hughes
 *Caldell, A. B. Forrest City
 Chaffin, E. J. Hughes
 Davis, Luther Chatfield
 Davidson, J. S. Forrest City
 Lanier, Paul S. Greenville, Miss.
 McClendon, H. L. Palestine
 Roy, J. M. Forrest City

Rush, J. O. Forrest City
 *Winter, W. A. Widener

SALINE COUNTY

Blakely, M. M. Benton
 Buffington, T. E. Benton
 Boen, L. R. Bauxite
 †Gann, Dewell, Sr. Benton
 Harrell, L. J. Bauxite
 Jones, C. W. Benton
 Steele, Ashby USA
 †Ward, W. W. Alexander
 Walton, Chas. R. Augusta, Ga.

SEARCY COUNTY

Cotton, J. O. Leslie
 Daniel, S. G. Marshall
 Evans, P. L. Marshall
 Fendley, E. G. Leslie
 Hall, H. J. Clinton
 Leslie, J. O. Marshall
 Moore, Raymond T. San Antonio, Tex.
 Moore, W. T. Marshall
 Rogers, W. F. St. Joe

SEBASTIAN COUNTY

*Adams, W. F. Fort Smith
 Alford, L. E. State Sanatorium
 Amis, J. W. USN
 Arnold, W. O. Temple, Tex.
 Benefield, C. E. Fort Smith
 Benefield, J. H. Fort Smith
 Billingsley, C. B. Fort Smith
 *Blair, A. A. Fort Smith
 *Brooksher, W. R. Fort Smith
 *Chamberlain, C. T. Fort Smith
 Clarke, A. S. J. Fort Smith
 Coffman, J. S. Lavaca
 *Crigler, R. E. Fort Smith
 Curtis, A. C. Little Rock
 Dickey, A. B. State Sanatorium
 Dorsey, H. C. Fort Smith
 *Eberle, W. G. Fort Smith
 *Even, Martin M. Wauwatosa, Wis.
 Finney, C. H. USA
 *Foltz, T. P. USN
 *Foster, M. E. Fort Smith
 *Goldstein, D. W. Fort Smith
 *Hall, C. W. Greenwood
 Henry, C. A. State Sanatorium
 Henry, Louise Fort Smith
 Henry, L. M. Fort Smith
 Hedrick, Rogers USA
 Hoge, A. F. Fort Smith
 Holt, C. S. Fort Smith
 Johnson, Hugh Fort Smith
 Johnson, J. D. USA
 Johnson, J. E. Fort Smith
 *Jones, I. F. Fort Smith
 Jones, E. B. Hartford
 Kennedy, C. H. Fort Smith
 *Krock, F. H. Fort Smith
 Leverett, Chas. G. Fort Smith
 Little, J. E. Wildcat Sanatorium
 McConnell, S. P. Booneville
 *Moulton, E. C. Fort Smith
 Moulton, H. Fort Smith
 Nowlin, R. R. State Sanatorium
 Pride, Ben H. USA
 Redman, J. W. Fort Smith
 *Riley, J. D. State Sanatorium
 *Rose, W. F. Fort Smith
 *Schirmer, R. E. USA
 *Scott, M. H. Fort Smith
 Shearer, F. E. Fort Smith
 *Shippey, W. L. Fort Smith
 Smith, H. H. Fort Smith
 *Southard, J. S. Fort Smith
 *Stevenson, J. E. Fort Smith
 Stocker, G. F. USN
 *Stubbs, S. P. Fort Smith
 Thompson, H. B. Fort Smith
 Thompson, J. K. USA
 Waddell, Pearl B. Fort Smith
 Wilson, C. L. USA
 †*Wolferman, S. J. Fort Smith
 *Woods, G. G. Huntington
 *Woods, W. M. USA

SEVIER COUNTY

*Archer, C. A. DeQueen
 Dean, Lee Andrew USN
 *Dickinson, R. C. Horatio
 Hanchey, C. C. USA
 *Hendricks, J. S. DeQueen
 *Hopkins, R. L. DeQueen
 *Jones, I. G. DeQueen
 Kimball, G. L. USA
 *Kitchens, C. E. DeQueen
 Norwood, M. L. Lockesburg

UNION COUNTY

*Atkinson, O. L. Hampton
 *Cathey, A. D. El Dorado
 Cullins, J. G. American Lake, Wash.
 Cox, Vincent M. USA
 *Fincher, L. G. El Dorado
 *Harper, J. W. USN
 Irby, F. L. El Dorado
 Jones, Gus W., Jr. USA
 Jones, Kenneth G. USN
 *Kennedy, C. E. Smackover
 Kitchens, D. K. Detroit, Mich.
 *Levine, David El Dorado
 †*Mahony, F. O. El Dorado
 *Mayfield, H. F. Huttig
 *Mayfield, H. J. USA
 McCall, Daniel Lawson
 *McGraw, S. J. El Dorado
 *Mitchell, J. G. El Dorado
 *Moore, B. L. El Dorado
 *Munn, E. J. El Dorado
 *Murphy, G. D., Jr. El Dorado
 *Murphy, G. D., Sr. El Dorado
 Murphy, H. A. El Dorado
 *Muse, P. H. Junction City
 *Newton, W. L. Smackover
 Patton, Doyle USA
 *Pinson, J. H. USA
 *Riley, W. S. USA
 *Russell, M. V. El Dorado
 Sheppard, J. K. USA
 *Sheppard, J. M. USA
 Slaughter, J. W. El Dorado
 *Wharton, J. B., Jr. USN
 *Wharton, J. B., Sr. El Dorado
 *White, D. E. El Dorado
 Wozencraft, W. L. El Dorado

WASHINGTON COUNTY

*Baggett, Jeff Prairie Grove
 Bean, J. L. Lincoln
 Bunch, W. L. USPHS
 *Butt, W. J. USA
 †Callen, C. B. Fayetteville
 Compton, Neil USN
 DeLaney, Jos. E. Fayetteville
 *Ellis, E. F. Fayetteville
 *Fowler, W. A. Fayetteville
 Gilbert, A. A. Fayetteville
 Hathcock, Alfred USA
 *Hathcock, Preston Fayetteville
 *Hathcock, P. L. Fayetteville
 *Huntington, R. H. Fayetteville
 Hundley, Louis K. USA
 Leming, Howell E. Fayetteville
 Lesh, Ruth Ellis Fayetteville
 Lesh, V. O. USA
 Lewis, James F. USN
 *Miller, R. W. Fayetteville
 Mock, W. H. Prairie Grove
 *Paddock, C. S. USN
 *Richardson, Fount USA
 Robinson, J. A. Summers
 Shafer, Frank M. Fayetteville
 *Sisco, C. P. Springdale
 *Sisco, Friedman Springdale

WHITE COUNTY

Abington, E. H. Beebe
 Adair, T. L. USA
 Allbright, S. J. Searcy
 Burton, Geo. C. Iowa City, Iowa
 Dunklin, A. J. Searcy
 Felts, W. R. Judsonia
 Hawkins, M. C., Jr. Searcy
 Hudgins, A. H. Searcy
 Hudgins, P. T. Columbus, Ga.
 Martin, J. A. Leachville
 Mobley, Hugh USA
 McAdams, J. C. Bradford
 Peeler, C. M. Pangburn
 Rector, Jos. L. USA
 Rodgers, P. R. Searcy
 Ruff, John L. USA
 Sloan, D. W. Beebe
 Sloan, J. R. Beebe
 Sneed, J. W. USA
 Spain, A. L. Letonia
 Wilson, W. H. Griffithsville

WOODRUFF COUNTY

Brewer, E. F. Augusta
 Dungan, C. E. Augusta
 Evans, R. H. Chatfield
 Hays, J. F. Augusta
 Maguire, F. C., Jr. USA
 Maguire, F. C., Sr. Augusta
 Morris, J. W. McCrory
 Wilkins, W. T. USA
 Williams, W. J. B. Cotton Plant
 † Deceased.
 * Wife is Auxiliary member.

PERSONALS AND NEWS ITEMS

Perry L. Stucker, after nearly three years in the Army, becomes southern district supervisor for the Schering Corporation, manufacturers of endocrine and pharmaceutical preparations. Mr. Stucker will supervise Schering service in Oklahoma, Texas, Louisiana, Alabama, Georgia and Florida. He will be located in Atlanta.

This veteran is a graduate of Valparaiso University, College of Pharmacy. He came to Schering in 1941, as assistant sales manager, and left that position the following year to enter the Army.

These appointments represent part of Schering's expansion program to facilitate supplying essential endocrine and pharmaceutical products to doctors and druggists.

The following were released from active military duty September 20th: H. T. Capel, Pine Bluff; F. S. Dozier, Wilson, and L. Murphey Henry, Fort Smith.

Alan A. Gilbert has been elected medicin of the Fayetteville voiture, 40 and 8.

Rex Williams has been elected surgeon of the Siloam Springs post of the American Legion.

James M. Matthews has been elected surgeon of the Morrilton post of the American Legion.

Chas. H. Reagan, who entered military service in 1941 and who has served in Alaska and in the European theater, has been released and has returned to practice at Marked Tree.

Dr. and Mrs. Fred Hames, Pine Bluff, spent a recent vacation in Wisconsin.

Vida H. Gordon has opened offices for the practice of pediatrics at 625 Beech Street, Little Rock.

Major Fount Richardson, Fayetteville, is now assigned to Station Hospital, Camp Gruber, Oklahoma, as chief of laboratory service.

Capt. C. N. Bogart, Forrest City, is now hospitalized at Station Hospital, Camp Gruber, Oklahoma.

Comdr. James W. Amis, Fort Smith, is now stationed at U. S. Naval Hospital, Camp Wallace, Texas.

Capt. Marlin B. Hoge, Fort Smith, after service on the Alaska Highway and in the European theater, has been released and has returned to practice at Fort Smith.

Ralph E. Crigler, Fort Smith, has been elected Lieutenant-Governor, Mo-Kan-Ark District, Kiwanis Clubs.

Capt. E. C. Moulton, Fort Smith, has received the Bronze Star for services in the European theater.

Lt. Comdr. T. P. Foltz, Fort Smith, is taking special work in tropical medicine at San Francisco.

W. J. Sheddan has been elected first vice-commander of the Osceola post of the American Legion.

Kirk T. Mosely, Blytheville, has been promoted to lieutenant-colonel.

Capt. John M. Smith, Little Rock, who served in the Pacific theater, is now stationed at Camp Robinson.

Lt. Col. R. H. Johnston, who has been on duty in China, recently visited Clarksville on leave, before reporting to his new assignment at Fort Lewis, Washington.

Lt. Ben Dallas Means, Little Rock, is now assigned to Eighth Service Command, Dallas, Tex.

Capt. Wylie E. Turner, Jr., Piggott, is now assigned to Billins General Hospital, Indianapolis.

R. L. Ferguson, formerly of Little Rock, has been appointed Professor of Pathology in the University of South Dakota School of Medicine, Vermillion, South Dakota.

Capt. Marvin B. Crow, Warren, is now stationed at Ashburn General Hospital, McKinney, Texas.

Capt. Joseph L. Rector, Searcy, is now stationed in the European theater with the 1265 Combat Engineer Battalion.

James W. Branch, who served as division surgeon of the Sixth Armored Division in Europe, has been released and has returned to practice at Hope.

James W. McKenzie, who served with a bombardment group overseas, has been released and has returned to practice at Hope.

J. F. Brownson has moved from Blytheville to Leachville.

The following have been appointed part-time venereal disease clinicians of the Arkansas State Board of Health: N. B. Ellis, Wilson; M. L. Skaller, Blytheville, and J. W. Brown, Pocahontas.

John W. Smith has been released from military service and has opened an office for the practice of ear, nose and throat and bronchoscopy at 1041 Donaghey Building, Little Rock.

Lt. Thomas G. Price, Wynne, is now stationed at the Naval Air Technical Training Center, Memphis.

Dr. and Mrs. I. F. Jones, Fort Smith, spent an October vacation on the Mississippi Gulf Coast.

Capt. Huie H. Smith, Little Rock, is now stationed at the 1045th A. A. F. B. U., San Antonio, Texas.

Friedman Sisco, Springdale, recently addressed the District Nurses Association meeting at Fayetteville.

Hollis H. Buckelew has been discharged from military service and has located at Rogers.

Howard M. Armstrong has been discharged from military service and is now associated with R. M. Eubanks in practice at Little Rock.

Thos. J. Raney, after nearly five years of military service, has been released and will be associated with Glen Holmes in practice at Little Rock.

J. E. Stevenson, Fort Smith, hunted pheasant in South Dakota during October.

R. J. Calcote has been released from military service and has returned to practice at Little Rock.

Major B. A. Bennett, Little Rock, is now stationed at Birmingham General Hospital, Van Nuys, California.

W. G. Hodges, Malvern, recently attended clinics in Chicago.

Joe H. Sanderlin, after over four years in service, has been discharged and has reopened his office at 432 Donaghey Building, Little Rock.

O. L. Atkinson has been re-elected commander of the Hampton post of the American Legion.

Lt. Comdr. Thos. P. Foltz, Fort Smith, has been assigned to Naval Hospital, Key West, Florida.

Doyle W. Fulmer has been released from military service and has returned to practice at 820 Donaghey Building, Little Rock.

J. K. Donaldson has been released from military service and has returned to practice at 1026 Donaghey Building, Little Rock.

J. K. Grace has been released from military service and has returned to practice at Belleville.

CORRESPONDENCE

October 6, 1945

To the Editor:

This is to inform you that I was officially relieved from active duty September 27th, and am now back in Little Rock.

I had planned to notify you of my change of address prior to leaving El Paso, but was so busy getting away failed to do so. I was notified about July 1st that my release had been recommended by Procurement and Assignment, but when it finally happened things moved in such a hurry that I had little time for anything other than clearing the Post and getting out of town.

You have not heard much from me since entering the army in May, 1942, but I want now to express to you my appreciation for the interest you have shown in all of us in the Services. I have received The Journal and "Random Thots of the Secretary" regularly and have enjoyed them very much.

I tentatively plan to resume my practice about October 15th. I had hoped to do some fishing in the meantime, but if this rain continues, that will be out.

It is needless for me to say that I am happy to be back and hope that I shall soon be able to see my many friends over the State. The next state meeting should be a happy one for everybody as there, we, no doubt, will see many whom we have not seen for several years. My address will be the same as for many years, 432 Donaghey Building. Best wishes.

Sincerely,

Joe H. Sanderlin.

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EDITORIAL

MEDICAL SERVICE GROUP FAVORS FEDERAL SUPPORT OF RESEARCH

A five-member subcommittee of the Committee on Postwar Medical Service, which was organized by the American Medical Association, the American College of Physicians and the American College of Surgeons in June, 1943, has approved in general the recommendations of the report recently submitted to President Truman by Dr. Vannevar Bush, director of the Office of Scientific Research and Development. The Bush report urged continuance in the postwar period of the coordinated and intensified research that did so much for the advancement of medical and other sciences during the war.

An analysis of the subcommittee's study appears in the October 6 issue of The Journal of the American Medical Association. It was prepared by Chairman Francis G. Blake, M. D., Dean of the Yale University School of Medicine; Frederick A. Collier, M. D., Professor of Surgery, University of Michigan Medical School, Ann Arbor; Victor Johnson, M. D., Secretary of the Council on Medical Education and Hospitals of

the American Medical Association; W. W. Palmer, M. D., Professor of Medicine, Columbia University, New York, and Rev. Alphonse M. Schwitalla (S. J.), Dean of the St. Louis University School of Medicine.

After citing several reasons set out in the Bush report for federal support of research, the subcommittee said that it "accepts the force of these arguments and agrees with the conclusions, subject to appropriate safeguards," adding:

"The subcommittee * * * favors federal support of research: it is of the opinion that the support of scientific research by the federal government presents a challenging and compelling opportunity for government to foster the public welfare by assisting in the support of scientific research. To be most effective, this support should leave the policy, personnel and method and scope of research to the colleges, universities and research institutions themselves. Institutional and personal liberty in research should be fully safeguarded. The responsibility for such safeguards should be entrusted to men of scientific achievement, knowledge and leadership."

Commenting editorially on the subcommittee's report, the A. M. A. Journal said:

"Among the points emphasized by practically every medical group that has considered the problem are the following:

"1. Voluntary philanthropic foundations, universities and similar agencies have contributed greatly to scientific and particularly to medical research in the United States. The establishment of a federal agency with vast funds might well obstruct, if not destroy, such voluntary efforts and thereby do more harm than good.

"2. The federal government aids research on cancer and on tuberculosis as well as research on some other conditions by special grants of funds. Measures have been introduced into the Congress for the spending of enormous funds, particularly in relationship to the study of neuropsychiatric disorders and dental conditions. Any program developed by the federal government should take into account the desirability of coordinating and integrating research on all medical problems proportionately to the need for such research and to the importance of the problems to be investigated.

"3. The advancement of medical science and the improvement in health in recent years have been so great that both Presidents Roosevelt and Truman emphasized the medical aspects of research in their messages to the Congress. Nevertheless some of the measures that have been proposed for establishing a National Research

Foundation fail to make provision for direct representation of medicine in the governing boards to be established, leaving it rather to subcommittees to undertake consideration of the medical problems.

"4. Most of the measures that have been introduced provide for fellowships to encourage young men who seem to have aptitude for research and for sections to be devoted to the dissemination of information and knowledge that may be developed. From the point of view of medicine there should be coordination between the special agencies created for education and for the dissemination of information with the agencies created specifically for research and also with the central board.

"5. The question of patents constitutes a special problem. Discussion of ownership of patents and the licensing of manufacturers under such patents may well come to be the stumbling block over which the whole proposal may fall.

"Possibly the ideal concept for the control of a National Research Foundation such as is proposed would be the creation of a general controlling board to include a chairman and members who would themselves be chairmen of various subsidiary committees. By such a technic adequate representation of each of the interests concerned would be provided and with it better coordination for the management of the Research Foundation."

THE PROCUREMENT AND ASSIGNMENT SERVICE IN DEMOBILIZATION

There is much misunderstanding over the functions of the Procurement and Assignment Service in the demobilization of medical officers. It should first of all be understood that never has this agency been other than an advisory body. In the period of mobilization it acted in an advisory capacity to the recruiting boards of the army and navy and to Selective Service; in demobilization, it acts in an advisory capacity to the Surgeon-Generals of the Army and Navy. It has never had the power nor the desire to influence the destinies of their colleagues. It was solely a voluntary agency, established by the President of the United States, with the function of helping, in an advisory capacity, to distribute physicians so that the military needs would, first of all be met, and that effort would be made thereafter to meet the needs of the civilian population. It scarcely needs to be stated that perfection in these aims was not attained.

It is doubtless logical that misunderstandings would arise over the activities of the agency. Men, classified as available by the agency, refused to volunteer for military service. Many classified as essential were obviously physically unfit for military service. Others, classified as essential, retained such a classification for the reason that a needed replacement could not be obtained from the older age group or from the group of physically disqualified younger physicians. The Procurement and Assignment Service which, it should be further understood, operated at the county level for determination of availabilities, was administered by organized medicine in the effort to help this country in a grave emergency. Through its efforts, the medical power of our armed forces became the mightiest and most effective in the world. For this Procurement and Assignment, of course, assumes no credit; the credit properly belongs to those physicians who made the sacrifice of leaving home to enter the armed forces; whose hardships and denials highlight the record of a good job, well done.

Now that Procurement and Assignment Service is concerned with the release of physicians remaining in the military service, it should be understood that practically the same criteria govern as did in the early days of the war. The military authorities have tactitly agreed to release, within limits, physicians to return to civilian status where there is shown that a critical shortage of physicians exists, and that there is an imperative need for the release of a specific medical officer. The procedure for such releases is established by the military authorities, not by the Procurement and Assignment Service. Again, the Procurement and Assignment Service acts in an advisory capacity on such requests for release, and there is no assurance that the recommendation of the agency will insure favorable action upon the request by the military authorities. Requests for such release must originate within the community affected and be initiated by the county procurement and assignment committee.

D. D. T.

With the release of the powerful new insecticide, dichlorodiphenyltrichlorethane, "DDT," to civilian use, it seems wise to call attention to the fact that while the preparation may be safely handled as an insecticide, it is, nevertheless, a toxic material. Poisoning may occur from ingestion of DDT or by absorption of DDT solutions through the skin. DDT powder and aerosols are

not absorbed through the skin and have been found to produce no ill effects when inhaled in small amounts. However, where air currents do not carry the dust away from the user, it is wise to wear suitable respirators as protection against excessive inhalation.

While small amounts of DDT will drive away insects, it must not be assumed that it is effective against all insects. In fact, it is less effective than pyrethrum against some insects. There is, no doubt, of its effectiveness against lice, bedbugs, flies, mosquitoes, but reports do not agree on ants, cockroaches, spiders and ticks. One of the most valuable characteristics of the preparation lies in its tendency to remain deadly to insects over a prolonged period of time. When applying solutions of DDT in kerosene, precautions against the inflammability of the kerosene should be observed. Gasoline should not be used as a solvent. The kerosene may, of course, irritate the skin.

Special precautions should be taken to avoid placing the powder where it might be mixed with kitchen supplies. In large doses, it has been shown to be poisonous to human beings and to a good many animals. Properly used, these poisonous effects are controlled; if improperly used, they may be harmful.

THE RETURNING MEDICAL OFFICER

Demobilization, much talked of in both military and civilian medical circles since V-E Day, appears to be well on its way. Already a number of our members have been released from military service and have returned to civilian practice. Others are known to be well along the way. The Society welcomes all its service members back to civilian medicine and wishes them everything that is good in their practice. The Journal expresses the hope that every member of the Society will do all within his power to assist these returned medical officers in the establishment of civilian practice in their home communities. Service members are reminded that the help which the members at home may furnish will be the more readily obtained, if they themselves will indicate their problems. The benefits of organized medicine should be provided in the fullest degree for those of our number who have so patriotically served in America's greatest emergency.

RANDOM THOUGHTS

September 16th. We pick up an Eastern soldier out of Conway this morning who relates the harrowing tale of walking into a cow along a fog-covered road out of

Heber Springs, his fright being greater over this experience than any bombing overseas. Meeting with the vocational rehabilitation administration and discussing its medical problems, finding that here we have a sympathetic agency.

September 18th. We have had occasion to be embarrassed over typography in The Journal, but we give due credit to our printer who has not yet given us "upside down" text as was the lot of the Missouri and Virginia Journals this month.

September 24th. The Navy's letter of commendation today, supplementing that from the Army some time back, completes the file of "thank you" letters to be received by the Procurement and Assignment Service.

September 25th. Comes Kirby of Harrison with the first medical combat badge we have seen, now engaged in sweating out a separation at Chaffee, the grand old army game of "losing his papers" having caught him at last.

September 26th. With Smith, Hall and Moulton to Thompson's place atop Highway 71 where there is abundance of good food and fellowship for the evening.

September 27th. We believe it since we saw it with our own eyes—Walter Eberle was at Burns Gables tonight with three women!

September 29th. The Razorbacks valiantly struggle against Bob Fenimore, one of the best backs we have seen carry a football, this afternoon and we are convinced the 1945 team will go places in the Southwest conference. Homeward in interminable convoy, Fayetteville to Van Buren, reminded greatly of the convoys of the old 206th to Pensacola in 1935 and later years, when it was our lot to travel up and down the line of trucks all day long.

October 8th. Comes A. M. Washburn for orders at Chaffee with the story of having practiced epidemiology in Africa, Italy and France much as he did here in days gone by, but where he was heckled here, over there they gave him the Bronze Star.

COMING MEDICAL MEETINGS

Southern Medical Association, Cincinnati, November 12th-15th.

Oklahoma City Clinical Society, Oklahoma City, November 26, 27, 28, 29th.

House of Delegates, American Medical Association, Chicago, December 3rd-6th.

International College of Surgeons, Washington, D. C., December 7th and 8th.

PHYSICIAN-ARTISTS' PRIZE CONTEST

The American Physicians' Art Association, with the co-operation of Mead Johnson & Company, is offering an important series of War (Savings) Bonds as prizes to physicians in the armed services and also physicians in civilian practice for their best artistic works depicting the medical profession's "skill and courage and devotion beyond the call of duty."

For full details, write to the Association's Secretary, Dr. F. H. Redewill, Flood Bldg., San Francisco, Cal., or Mead Johnson & Co., Evansville 21, Ind. Also pass this information on to your physician-artist friends, both civilian and military.

PROCEEDINGS OF SOCIETIES

Pope-Yell County Medical Society met in dinner session at St. Mary's Hospital September 13th with L. M. Smith, Russellville, discussing "Phlebitis and its various aspects."

Ellis Gardner, Secretary.

The Washington County Medical Society was addressed September 4th by Friedman Sisco, Springdale, on "Army Life and Army Medicine."

Ruth Ellis Lesh, Secretary.

The Ouachita County Medical Society met in dinner session September 6th at the Camden Hospital. The program consisted of a motion picture on "Injuries to the Back." This movie was produced at the Ochsner Clinic in New Orleans.

The doctors initiated a 13-week newspaper advertising program against the Wagner-Murray-Dingell Bill.

R. B. Robins, Secretary.

The Craighead-Poinsett County Medical Society met at Jonesboro September 6th with a paper on food and vitamins by J. H. McCurry, Cash, and a motion picture on "Modern Nutrition and Clinical Symposium."

J. H. McCurry, Secretary.

The Benton County Medical Society met in dinner session at Bentonville October 11th with a round table discussion on Poliomyelitis as the program.

Geo. M. Love, Secretary.

The Sebastian County Medical Society was addressed October 10th by Capt. Jerry Miller, Camp Gruber, Oklahoma, on "Gastrointestinal X-ray Studies."

D. W. Goldstein, Secretary.

The Craighead-Poinsett County Medical Society was addressed October 4th by E. G. Kelley, "The Acute Abdomen," and M. W. Holehan, "Diagnosis and Treatment of Recto-Sigmoid Maligancy"; both speakers of Memphis.

J. H. McCurry, Secretary.

The Fifth Councilor District Medical Society met in Camden October 16th with an afternoon scientific program, a dinner at the Shumaker Naval Ordnance and an evening public session. Speakers on the scientific program were: Capt. H. R. Boone, Naval Hospital, Memphis, "Re-

habilitation of the Navy Patient"; Jacob Alperin, Memphis, "Harmful Effects of Morphine and Digitalis in Heart Disease"; "The Diagnosis of Management of Obstructive Lesions of the Colon," R. L. Sanders, Memphis, and "Medical Research in War and Peace," Vice-Admiral Ross T. McIntire, Surgeon-General, United States Navy. The evening public session was addressed by Mayor Don Harrell, J. P. Clemens; George S. Benson, Harding College, Searcy, "Full Employment"; Vice-Admiral Ross T. McIntire, "War Medicine and Its Future Impact," and Governor Ben Laney.

The Lawrence County Medical Society was addressed at Imboden October 9th by Paul Gray, Batesville.

Chas. D. Tibbels, Secretary.

COMMUNIQUE

Chungking, China,
September 20, 1945

To the Editor:

Have not seen The Journal since arriving in China about two months ago and I miss the news from Arkansas. Would appreciate you changing my address from 1344 Connecticut Avenue, Washington, D. C.

Recently Arkansas was a big topic of conversation when I met Dr. Kirk Mosely, an old-time Arkansan and my predecessor as Director of the Miller County Health Unit. We enjoyed talking about mutual friends and our post-war plans in public health. Both of us are thinking seriously of returning to Arkansas.

Dr. Mosely is a Lieutenant Colonel medical officer for G-5 in China. I am detailed to UNRRA for public health rehabilitation in China. Came out with a team of nine men to assist in the control of the cholera epidemic in Chungking. Now that it is over, we are staying for the more permanent UNRRA program. At this moment all of us are planning to move to the coast—Shanghai, Canton, Tientsin and other parts. The future here in China is pregnant with social changes and plenty of excitement. However, it will be damn good to see home again, and I hope soon, Arkansas.

My best regards to you all and especially my friends in Miller County.

Sincerely,

Herbert K. Abrams,
Major, U. S. P. H. S.
PH 82599, UNRRA
APO No. 879
Postmaster, New York

WOMAN'S AUXILIARY PAGE

September 28, 1945

At a beautifully appointed coffee, the first meeting of Bowie and Miller County Auxiliary for the season 1945-46 was held in the new home of Mrs. L. J. Kosminsky, with Mrs. Karlton Kemp, Mrs. Reavis Pickett, and Mrs. J. H. Rives as co-hostesses.

Welcome to new members, old, and visitors was extended by the president, Mrs. William Hibbitts, who is skilled in the grace of conversation. Near forty guests were present, this being a very promising beginning.

Minutes of the last meeting of the previous year were read by the secretary, Mrs. Ralph Cross, and approved.

The report of the year book committee was the presentation of the lovely year books. (Chairman, Mrs. Harry Murry).

Treasurer's report showed a balance of \$14.00.

Hygeia chairman, Mrs. Roy Baskett, gave a brief outline of her year's work.

The president, Mrs. Wm. Hibbitts, told of her visit in San Antonio to attend the Texas State Board meeting. She told of the interesting talk by Dr. Miller, from the Texas State Medical Society. She attached the utmost importance to socialized medicine, a matter of common knowledge, and urged that we learn about these bills, pay poll taxes and vote, learn more about your state legislature and keep up on public health.

The program was turned over to Mrs. P. H. Phillips of Ashdown. It consisted of current events in medical science. Each member had an article to read, and this was discussed by the chairman, Mrs. Phillips.

Guests, introduced by the president, were Mrs. L. H. Lanier, Mrs. A. L. Fuller, of Ballinger, and Mrs. Robert Kittrell.

Mrs. Kosminsky invited the guests into her dining room, where delicious refreshments were served from the beautifully appointed table.

Mrs. D. W. Goldstein, new president of the Auxiliary of the Sebastian County Medical Society, assumed her duties at a luncheon and business meeting of the Auxiliary October 9th. Mrs. Goldstein and Mrs. B. L. Ware were hostesses.

New officers serving with Mrs. Goldstein are Mrs. B. L. Ware, past president, who automatically becomes vice president; Mrs. Miles Everett Foster, secretary, and Mrs. Walter Eberle, treasurer.

Standing committees appointed by the president for the year are as follows: Public rela-

tions, Mrs. W. L. Shippey, chairman, Mrs. I. Fulton Jones, Mrs. S. J. Wolferman, Mrs. Fred Krock, Mrs. K. Thompson and Mrs. Albert Clarke; Hygeia, Mrs. S. P. Stubbs, Mrs. Minnie U. Fuller of Magazine, Mrs. J. W. Redman; telephone, Mrs. W. F. Adams, Mrs. Ralph Crigler, Mrs. J. S. Southard; program, Mrs. Everett Moulton, Mrs. A. A. Blair, Mrs. Eugene Stevenson; health, Mrs. Charles Chamberlain, Mrs. C. S. Holt, Mrs. M. Wood, Huntington, Mrs. Thomas Price Foltz; courtesy, Mrs. B. L. Ware, Mrs. M. E. Foster, Mrs. H. B. Thompson; legislation, Mrs. Mabel Scott, Mrs. Charles Leverett, Mrs. Arthur Franklin Hoge; cancer control, Mrs. W. R. Brooksher, Jr., Mrs. C. W. Hall, Greenwood, Mrs. J. W. Riley, Booneville, Mrs. G. G. Wood, Huntington, Mrs. Hardy H. Smith; membership, Mrs. Walter Eberle, chairman; publicity, Mrs. W. F. Rose.

Contribution of \$10.00 to the Arkansas Medical Student Loan Fund was unanimously approved by the Auxiliary as was a contribution to the Erle Chambers Memorial Library fund for the purchase of books for the Booneville sanatorium.

A contribution of \$14.00 was made to the Louis Milne Gift hospital ship birthday fund during the summer.

Members in attendance at the luncheon were Mrs. Goldstein, Mrs. Ware, Mrs. Walter Eberle, Mrs. S. P. Stubbs, Mrs. J. S. Southard, Mrs. H. H. Smith, Mrs. Everett Moulton, Mrs. S. J. Wolferman, Mrs. H. B. Thompson, Mrs. W. F. Rose. Mrs. J. W. Redman was enrolled as a new member.

Mrs. W. F. Rose, Publicity Chairman,
Sebastian County Medical Society
Auxiliary.

BOOK REVIEWS

Penicillin Therapy Including Tyrothricin and Other Antibiotic Therapy. By John A. Kolmer, M. S., M. D., Dr. P. H., Sc. D. LL. D., F. A. C. P., Professor of Medicine in the School of Medicine, Temple University, etc. Pp. 302. New York: D. Appleton-Century, 1945.

This is an interesting and timely treatise of Penicillin Therapy Including Tyrothricin and Other Antibiotic Therapy. The early part of the book is devoted very ably to a review of Penicillin, Tyrothricin, Gramicidin S. and other antibiotics. General consideration to all of the antibiotics with a resume of the individual ones and their development being well covered.

A detailed consideration is given to the production of Penicillin, including extraction of Penicillin from the urine for readministration. The various strains of Penicillin are discussed. For one who is interested in the assaying of Penicillin the various methods are discussed in detail, the physical and chemical properties of Penicillin are adequately covered. Attention being called to the deleterious

effects of acid, heat, and hydrogenion concentration. There is a very nice dissertation of the antimicrobial activity of Penicillin in Vitro and in Vivo. The discussion of the various organisms that respond to Penicillin treatment is summarized in a directive chart showing the organisms that are highly susceptible, moderately susceptible, and slightly susceptible or insusceptible. Nothing new in administration is given, but a resume of the various methods of administration is well covered. At the end of each chapter extensive credit is given to the various writers and a nice bibliography is found in the references. At the back of the book detailed index is chronologically listed.

A Textbook of Pathology: By Robert Allan Moore Edward Mallinckrodt, Professor of Pathology, Washington University School of Medicine, St. Louis, Mo. 1,338 pages with 513 illustrations, 34 in colors. Philadelphia and London: W. B. Saunders Company, 1944. Price \$10.00.

This book departs from the usual text by its emphasis upon the physiologic and chemical aspects of pathology. The book is well written for the practitioner as well as for the pathologist and will be a welcome addition to all medical libraries. The illustrations are especially noteworthy as are the color photographs.

Dietotherapy—Clinical Application of Modern Nutrition: Edited by Michael G. Wohl, M.D., Associate Professor of Medicine, Temple University School of Medicine; Chairman, Advisory Committee on Nutrition, Philadelphia Department of Public Health; with a foreword by Russell M. Wilder, M.D., Ph.D., Professor of Medicine and Chief of the Department of Medicine, Mayo Foundation; member of the Committee on Medicine and Subcommittee on Medical Nutrition, Medical Sciences Division, National Research Council. 1029 pages with 93 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$10.00. Fifty-eight collaborators fully discuss the important sub-

ject of diet giving complete resume of clinical and laboratory work in each phase. This is a well-written, comprehensive work on the relation of nutrition to disease and on the clinical applications of dietotherapy.

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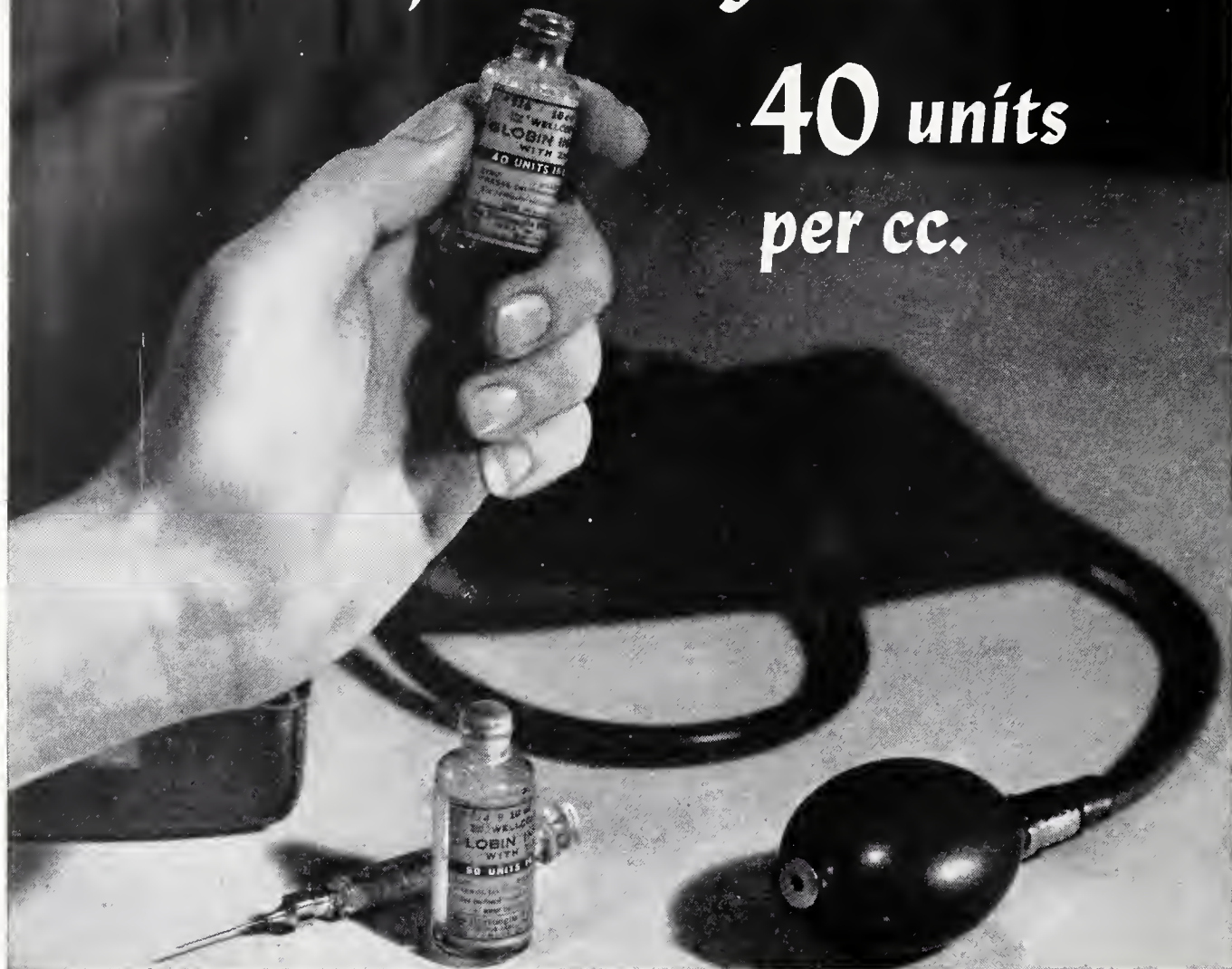
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No. 7

A BRIEF DISCUSSION OF THERMAL BURNS*

WILLIAM G. COOPER, II, M. D., F. A. C. S.

From the Department of Surgery
University of Arkansas School of Medicine
Little Rock

Thermal burns are among the commonest tragedies of life. In children 80% are due to hot liquids needlessly spilled on the victims, 17% are due to fire. Approximately five to ten per cent of all these patients die.¹ In adult life the great majority are due to the improper use of fuel oil on smoldering coals, a minor percentage result from industrial and house fires. No burn heals without loss of time and many of them cause loss of either function or of life. Most burns should be prevented.

In estimating the severity of a burn the degree of skin damage is most important. Burns are usually classified in three or four degrees. A first degree burn is one which causes only a reddening of the skin, as in sun-burn. This type of burn will rapidly heal without permanent skin damage. A second degree burn is associated with vesicle formation. It will heal spontaneously with some scar. Many hot water scalds are of this type. A third degree burn entails the loss of the entire epidermis and will require skin grafting if any considerable amount of skin is lost.^{2 4} As burns with extensive charring of the deep tissue present special problems, they may be classified as fourth degree burns. Frequently the decision as to the degree of damage cannot be made when the burn is first seen. A fresh burn with either erythema or blister formation is clearly a first or second degree and one with dead white skin is definitely a third degree burn. Yet in many instances a definite classification is possible only at a later date, usually around two weeks after the burn occurs.^{3 6}

The amount of skin damage is also of great importance. Birkow's estimation of body surface areas is generally accepted.⁷ He showed that

the head and neck comprise about 8% of the total body surface, the upper extremities 18%, the trunk 37% and the legs about 37%. A burn of 10% of the body surface will have serious systemic manifestations. A burn involving 40% of the skin area is often fatal. Burns in four specific areas are also of bad prognostic import for particular reasons. Those of the face are difficult to dress and cause cosmetic deformities. Flexor surface burns frequently cause contraction. The genitalia and perineum, because of their moist infectious nature and irregular surfaces, constitute a healing and dressing problem. Likewise, those of the hands and feet are troublesome because of loss of function which develops in an essential member of the body. Flame burns around the face may be associated with the inhalation of hot gases which burn or irritate the tracheo-bronchial tree predisposing to pneumonia and a fatal outcome.

It is evident, from the above discussion, that two types of burns may be distinguished. One is a minor burn wherein local healing will occur without necessitating skin grafting and no systemic manifestations need be expected. The other is a serious burn of a third degree nature where local grafting will be necessary and the systemic effects are dangerous. All burns involving over ten per cent of the body area, flexor surfaces, hands, feet, face, genitalia, and lungs are placed in this serious category by the Armed Forces.

Minor burns are best treated locally by the application of a bland ointment (we use merthiolated vasoline in the fine mesh gauze),^{8 13} and pressure dressings.^{14 15} Many other types of treatment have been advocated and most achieve good result in the hands of a surgeon expert in their use. Plaster casts,^{16 20} triple dyes,^{21 22 23} various sulfonamide^{24 28} and propanamide^{24 28 29} ointments, penicillin,^{30 32} and transparent irrigation jackets^{33 34} are used but no particular method seems to be of special advantage. All burned patients must, of course, have sufficient sedation to alleviate pain.

There is some debate as to whether or not a fresh burn should be debrided. Many writers

* Presented to the Southeastern Arkansas Medical Society, McGehee, Arkansas, February 26, 1945.

advocate a complete surgical toilet of the burn if the patient will tolerate the procedure.³⁵ Others apply the pressure dressings directly to the wound without cleansing it.¹³ The question of debridement can be answered by reviewing the condition present when the patient is first seen. A clean burn (such as a hot water scald occurring in the operating room) can be dressed immediately whereas a flame burn contaminated with soil must be debrided under anesthesia. Any burn should be conceived of as a wound.³⁶ If so treated, under ordinary surgical principles, the best possible results will be achieved. Any method which cleanses the area, then prevents infection by enclosing it in a bland non-adherent dressing, and applies pressure to prevent the leakage of plasma will allow healing to occur at a maximum rate.

One previously popular method, that of applying tannic acid, is now out of favor because of the accompanying liver necrosis and should be discarded.^{6 20 37 39.}

In the treatment of major burns, systemic abnormalities must first be treated and then local therapy carried out.

The chief physiopathological changes of interest in burns are: capillary damage, plasma loss, primary shock, toxemia, anoxia, and infection.⁴⁰ The capillaries and small vessels which are burned exude plasma with great protein loss and hemoconcentration. The hemoglobin and red blood count rise as does the hemotacrit. There is extensive loss of tissue and fluid protein. The resultant hemoconcentration and circulatory fluid loss reduces the effective amount of blood returned to the heart and sometimes causes comparative cardiac failure. Oxygen is then not available to the tissues and a general depression of all body functions results. In some extensive burns, the hemoglobin is liberated from the red cells. Acid hematin may be deposited in the tubules of the kidneys with a mechanical blockage of excretion. In extensive and infected burns toxemia and hyperexia result. This further adds to the load on the liver and kidneys, causes cloudy swelling and necrosis, and a vicious circle of liver and kidney disfunction.⁴¹

The most important pathological change is loss of protein. It has been estimated that a patient with 30% of the body surface burned will lose upwards to 50 gms. of protein daily from the wound.⁴² In serious burns one must first relieve the pain and then give plasma transfusions before the local condition is treated. Various yard sticks have been set up for estimating the amount of plasma needed. Some writers

advocate giving 500 cc. of plasma for every 10% of body surface that is burned.^{43 44} Others administer 100 cc. of plasma for each point the hemoglobin is elevated above 100 or the hemotacrit raised above 45. The Armed Forces, however, apparently use a rule that we try to approximate. In severe burns, 1500 cc. of plasma is given in the first fifteen minutes, 2,000 to 4,000 cc. in the first twenty-four hours and about 6,000 to 8,000 cc. of plasma is given in the first five days.⁴⁷ This is supplemented by as high a protein diet as can be tolerated and by the use of amino-acids⁴⁶ if they are available. There are commercial products on the market which supply amino-acids in a form suitable for use. 1000 to 2000 cc. of this solution daily may be given to supply protein. The weeping of plasma continues until the burn is grafted and the high protein intake must therefore be continued for some time. After the primary shock has been treated, the same local therapy as recommended for minor burns should be carried out.⁴⁷ Special emphasis is placed on pressure dressings to cut down plasma loss as much as possible. Enough blood transfusions must be given to maintain the number and volume of circulating blood cells. Some writers advocate giving sodium lactate⁴⁸ to prevent the deposition of acid hematin in the kidneys, but it has not been accepted as obligatory. Liver toxemia is minimized by the administration of glucose. Late sepsis may be reduced or prevented by the parental administration of penicillin or sulfonamides.^{6 31 38} These are only adjuncts however, and faith should be placed on surgical technique to prevent contamination. It is obvious that most of these patients will have to be hospitalized, preferably in an institution where trained personnel and surgical teams are available to handle such special cases.

All third degree burns will require skin grafting as early as possible. Ideally a burn should be ready for grafting two weeks after injury but this is difficult to achieve. Skin regeneration to cover an area much larger than four square cms. cannot be expected to occur successfully as the resultant scar will not stand trauma but will recurrently break down and ulcerate. Split grafts are generally considered the best for covering these defects.¹⁹ Occasionally postage stamp grafts⁴⁹ or Reverden grafts⁷ may be useful on patients with large denuded areas.

In summary: first and second degree burns can successfully be treated by surgical cleansing of the wounds and the application of bland non-adherent pressure dressings. Extensive serious burns will respond to the same type of local treat-

ment but because great plasma loss, hemoconcentration, toxemia and infection are liable to occur, particular care to replace the lost protein is necessary. Following this skin grafting must be done to obtain a covering table to stand the ordinary trauma of life.

The ideal treatment of burns would be to prevent their occurrence and any additional educational efforts devoted along this line are to be encouraged.

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MODERN CONCEPTS OF CARDIOVASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society
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HEART FAILURE Part II

The Diastolic Volume Law and Failure

"The fundamental energetic fact in connection with the adaptability of the heart to its load is the diastolic volume law. This law states that when chemical conditions and heart rate are held constant the energy output of the heart in contraction is a function of the length of its fibers at the end of diastole (that is at the initiation of contraction.) Furthermore, it has long been known that the conditions which call for an increase in cardiac work, (a) increased venous filling and (b) increased arterial pressure, both increase the diastolic cardiac volume. Increased filling does so for obvious reasons; increased arterial pressure does so because the residual blood after systole increases with each contraction as long as the energy output in systole is insufficient to move the blood entering in diastole. The process of accumulation ceases when the diastolic ventricular volume rises to a level such that the energy liberated is adequate to carry the load of work imposed.

"The law of diastolic volume is also one of the most basic physiological considerations in heart failure. The entire symptomatology of congestive failure can be accounted for on the basis of the diastolic volume law. In this consideration the presence or absence of hypertrophy will be

ignored because it has no influence upon the basic process. Hypertrophy only delays onset of the symptoms because it makes the heart a stronger pump-engine.

"When a heart fails it dilates. This dilation is the result of an increase in residual blood. The ventricles are unable to eject in systole all that enters in diastole. This process is slow and over any short period of time the heart is in a steady state because the dilation results in a greater systolic energy liberation which permits it to carry its load.

"Congestive failure is progressive. The intimate reasons for its onset are unknown. The result is a decrease in mechanical efficiency. The cause may be the exhaustion of some important metabolite, coenzyme, enzyme or structural element, or the accumulation of some inhibitor. This question richly warrants intensive study because it is at the bottom of the whole clinical problem. But the progressive character of the condition is a fact of universal experience. It results in a progressively greater increase in residual blood and consequently in the volume of the heart.

"The dilation of the heart results from the pressure of blood in the great veins. Since, as noted above, the heart is an elastic bag, its internal pressure must rise if it is to be distended. Since it shows hysteresis it adapts somewhat to this pressure, but in the end the pressure necessary to distend it increases considerably. The venous pressure therefore rises because the return flow of blood to the great veins occurs normally under a large pressure gradient. Normally the pressure in the right atrium in diastole is from 10 to 15 mm. Hg. lower than the pressures in small venules. This difference of pressure drives the blood to the heart. When the heart fails the atrial pressure rises toward the level of the venule pressure. The pressure in the great veins is a resultant of two factors: pressure in the small veins and the rate at which blood can leave the great veins and enter the chambers of the heart. When the latter are fuller than normal in protodiastole, pressure in the great veins inevitably rises and tends to approach more closely the pressure in small veins because the normal rate of run-off into the heart does not prevail.

"The account just given of the hemodynamics involved in elevation of the venous pressure in cases of heart failure is a detailed statement of the so-called backward failure mechanism. This title emphasizes the effects of the increased cardiac residual blood volume upon the dynamics of the symptom complex of heart failure.

"Backward failure is the antithesis of forward

failure, in which, as in ventricular fibrillation, the heart simply fails to propel blood. In the presence of myocardial ischemia there may be varying proportions of the symptoms due respectively to the back-pressure effects and to the failure to maintain adequate forward movement of blood. Always terminally it is the failure to maintain forward movement that produces death, but the predominating symptoms before the terminal state are usually due to the back-pressure.

The Role of the Coronary Blood Flow in Heart Failure

"When portions of the myocardium are deprived of blood, such heart muscle unquestionably fails by virtue of decreased, and ultimately of absence of energy liberation. Coronary arterial occlusion stops the supply of oxygen to the myocardium, and any part of the heart so affected rapidly loses its contractile function. Likewise obstruction to coronary venous outflow impedes the intracardiac circulation. Increases in right atrial, or right intraventricular, pressures, or both, measurably quicken the process of failure in experimental animals and presumably in man. Thus, elevations in venous pressure set up a vicious cycle—decreasing coronary flow and thus aggravating failure, which in turn results in still higher venous pressures, perpetuating the cycle. It may be because this cycle is interrupted that reduction in volume of circulating blood is sometimes therapeutically effective in treatment of congestive failure.

"The rate of blood flow in the coronary arteries is dependent upon the pressure gradient between the stomata of the coronary arteries in the aortic wall and the effluents of the coronary and thebesian veins. Thus the difference between aortic pressures on the one hand and right atrial and intraventricular pressures on the other, chiefly determines the coronary flow. This difference can be altered by changes on either side. Consequently a rise in aortic pressure can compensate for the ill-effects of elevations in right heart pressures. It is well known that a fall in arterial pressure quickly embarrasses the heart by reduction in coronary flow. The effect of increased arterial pressure has not been studied critically but it has been suggested that in some cases in which mitral stenosis has been present, the super-vention of hypertension has postponed the development of symptoms of decompensation.

Summary

"The heart is a pump-engine which ordinarily fails by virtue of a decline in mechanical effi-

ciency of unknown cause. The result of the efficiency decline is an increase in systolic ventricular volume in consequence of the obedience of the heart, even in failure, to the diastolic volume law. As a consequence of the diastolic volume law the decompensated heart is enlarged, the pressure in the great veins rises, while the arterial blood pressure and output of the heart at rest are little if at all affected. The cardioactive glycosides increase the mechanical efficiency of the decompensated heart. This action appears to be the basic mechanism by which such agents alleviate the symptoms of cardiac failure. The flow of coronary blood is impeded by elevations in right heart pressures and by low aortic pressures. The elevation in right heart pressures in the presence of failure sets up vicious cycle which tends to make failure a progressive phenomenon. The rational approach to the understanding of heart failure is through consideration of the heart as a machine, the energetics of which can be analyzed and influenced in the direction of more effective functions."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

CORRESPONDENCE

Nov. 1, 1945.

We received your letter welcoming us back to the State of Arkansas and fellowship with the members of the Arkansas Medical Society. We are happy to be back and will try to do our part in carrying out any program endorsed by the State Medical Society for the future welfare of the Society and the State of Arkansas.

Many thanks for Random Thots which you so faithfully sent to us while we were overseas. Your interesting and regular letters contributed to the good morale of doctors from Arkansas wherever they might have been stationed. We feel that the members of the Arkansas Medical Society who remained at home and took care of the civilian population are entitled to the same gratitude which has been accorded to the physicians who have served with the armed forces.

We hope to have the opportunity of getting better acquainted with more members of the State Medical Society through our meetings and contacts in our professional work.

Sincerely yours,

Robert F. Hyatt, Jr., M. D.
Monticello.

III. PHYSIOLOGY OF THE PREMATURE AND FULL-TERM NEWBORN AS RELATED TO CARE

The handicaps that the premature infant suffers only differ in degree in most instances from the handicaps present in the normal full term infant, and therefore the care we give the premature infant is just an intensification of the care that every normal full term infant should receive.

The problems with which we are concerned are essentially the same in both cases—regulation of body temperature, hydration, maintenance of adequate respiration and good nutrition, prevention of infection and prevention of cerebral injury, especially at birth.

If any of these important factors are impaired in the full term infant, the infant will in all probability do poorly and, if the defect is severe, or persists, die. The premature infant will react more quickly and more seriously to impairment of these functions and death ensues more frequently and more rapidly.

It is therefore even more important in the premature infant than in the full term infant to so regulate the infant's care and environment that the handicaps that are present are compensated as much as possible. All good care of the premature infant is based upon this premise.

The regulation of body temperature in the premature infant is made particularly difficult because of the following factors:

The infant's surface area is large in proportion to its weight. A one-pound baby has more than twice the surface/volume ratio of an eight-pound baby, which in turn has approximately twice the surface/volume ratio of a sixty-four pound child or, in other words, it is just twice as hard to keep them warm if we consider surface area alone.

In addition, the premature infant has a lack of insulating subcutaneous fat, a thin skin, and a copious supply of blood vessels near the surface which all permit additional loss of heat by radiation.

In addition to this, the premature infant has a feeble muscular development with a resulting low total heat production.

To compensate for this, we must surround the infant with a constant environmental temperature

* Installments three and four in a series of articles on the care of the premature and newborn approved for publication by the Committee on Maternal and Child Welfare and submitted by Frances C. Rothert, M. D., Acting Director, Division, Maternal and Child Health, Arkansas State Board of Health.

that will retard this heat radiation and maintain the infant at a constant optimum temperature.

Too high an environmental temperature is dangerous for the premature infant because their sweating mechanism is incompletely developed and because they are more prone to take on the temperature of their surroundings than adults due to several factors, including the greater surface to volume ratio and lack of insulation mentioned previously.

These latter factors also have considerable effect upon the infant's hydration and to prevent a serious loss of fluid via the skin, we keep the environment of the premature infant properly hydrated. This is also important for the full term infant to a lesser degree.

What are the factors which handicap respiration in the premature infant? First, there is the incomplete development of the capillaries of the medulla. As a result, the respiratory center in the medulla does not function as well as it does in a full term baby and the stimulus to respirations is more irregular and not as strong. Similarly, the full term infant does not have as regular and strong stimuli to respiration as the adult.

There is also incomplete development of the capillaries in the lungs of premature infants. This combined with the incomplete development of the alveoli of the lungs cuts down considerably the effective aeration of the blood passing through the lungs.

To make the situation even more serious, the muscles used in respiration are rather weak and the thoracic cage of a premature infant is more flexible than that of a healthy full term infant, so that not only are the respirations inefficient because the stimulus was poor and the muscles weak, but because some of the contraction was wasted in pulling in the thoracic cage and reducing the lung volume.

In addition, the cough and gag reflexes are feeble.

What do we do to overcome all these handicaps?

First, we must be sure there is no mucus blocking the air passages, and must be careful fluid is not aspirated into the lungs during feeding. Then we must be sure the clothes are loose enough and light enough not to hamper respirations and that the infant's position permits free mobility of the thorax and diaphragm. We also want to be sure the diaphragm is not pushed up by a large gas bubble in the stomach or abdominal distention. Premature infants can be bubbled with a minimum of handling right in their incubators.

Oxygen should always be available for use in safe incubators and a stimulant, such as aromatic spirits of ammonia, near at hand. (Use the latter with care—too much may produce a spasm of the glottis.)

Carbon dioxide is also useful in 5-10% concentrations for stimulating respirations but should not be given except in conjunction with oxygen.

The premature infant has greater nutritional needs in comparison to weight than the full term infant because he has an incomplete storage of calcium, iron and ascorbic acid, since storage takes place to a considerable degree late in gestation, and because of his greater growth needs—particularly in protein and calcium—and Vitamin D.

He is handicapped in ingesting, retaining and assimilating this needed nourishment by weak-sucking and swallowing reflexes, low acidity of the gastric contents, small capacity of the stomach with tendency to distention and vomiting and excessive excretion of fat.

To overcome these difficulties, we feed the infant small amounts relatively frequently, using a small nipple or a medicine dropper, or by gravage, if necessary. We use a low fat content milk if we do not have breast milk, and prefer evaporated milk to whole milk because of its finer curd and the possibility of obtaining a higher protein content. We give Vitamin C as ascorbic acid, Vitamin D as a concentrated type of oil, such as percomorph, or navitol, rather than cod liver oil. Some pediatricians also give very small amounts of the B Complex. We increase the concentration and amount of formula fed very gradually to avoid gastro-intestinal upsets. We are satisfied if the infant's weight remains stationary or if it gains very little at first, as the danger of gastro-intestinal disturbances, due to overfeeding, is ever present and a serious complication. For optimum results, the direction of the child's feeding should be the responsibility of a pediatrician experienced in the care of premature infants.

We must protect the infant from infection as its resistance is considerably less than that of the full term infant. This is partially due to the interruption of transfer of protective antibodies from the mother but is also due to the ease with which its respiratory and digestive systems and its hydration can be interfered with.

We protect the infant from infection before birth by keeping the mother healthy and, if necessary, treating her infections, such as syphilis. We protect the infant during birth by the care we give while tying the cord, the prevention

of infection in the eyes by the use of silver nitrate, the avoidance of gastro-intestinal infection by not contaminating the infant's mouth by placing anything within the infant's mouth (including the obstetrician's gloved fingers) which could possibly have been contaminated by the mother's feces. We aspirate amniotic fluid and mucus aseptically to avoid aspiration pneumonia. We handle the infant's skin gently and with thoroughly clean hands to avoid skin infection.

All of these procedures are equally important for the full term baby.

In the first few weeks of its life, it is even more important for the premature infant than for the full term infant to be isolated from all visitors, to be handled as little as possible and then only by persons free from infection, wearing clean clothes and with carefully washed hands, observing carefully premature nursing technique.

In addition to all the hazards previously mentioned, there is an even greater hazard—the possibility of injury to the central nervous system.

The premature infant has more fragile capillaries than the full term infant—it is more susceptible to anoxemia due to sedation and anesthesia, it is more frequently a breech presentation since rotation of the foetus to the cephalic presentation usually occurs in the latter months of pregnancy. The premature infant's head is less well able to withstand the forces of labor since the bones are more easily displaced and the tissues more fragile.

Some of the effects of fragility of the capillaries can be offset by the administration of Vitamin K to the mother during labor. Reduction of anesthesia and omission of morphine, together with oxygen inhalation for the mother during delivery will reduce the incidence and severity of anoxemia. Good obstetrical judgment before and during delivery will keep to a minimum the amount of trauma due to forces of labor. Shortening the second stage of labor by episiotomy under local anaesthesia and low forceps is often indicated.

Following delivery, care should be taken that infants in which there is any suspicion of cerebral hemorrhage are never placed with the head in a dependent position at any time. They are usually given additional Vitamin K if capillary bleeding is suspected and it is more important than ever that their color and respirations should be watched and that they should be handled as little as possible. This also applies for the full term infant.

In conclusion, we can say that all of the care of the premature infant is based upon the need

to compensate for its physiological handicaps, and that most of the principles involved apply also to the normal full term infant, although he is handicapped to a somewhat lesser degree.

IV.

EPIDEMIOLOGY OF THE NEWBORN

The types of infection that give us the most concern in the premature infant and in the full term newborn are gastro-intestinal and respiratory disease, infections of the skin and cord, gonorrheal infection of the eyes and systemic infections acquired prior to delivery, especially syphilis.

Although our chief effort in the control of gonorrhea and syphilis is centered in the prenatal period and in prevention of ophthalmia at the time of delivery, we are also concerned in the prevention of the spread of these diseases in the nursery. Any one of the infections mentioned previously when once introduced into the nursery may be spread from infant to infant if the nursing technique is not careful and if infected infants are not isolated promptly. Infants are isolated in a separate nursery as soon as we suspect they have an infection—we do not wait until the diagnosis has been confirmed.

Recent studies have shown that infants may carry the bacilli of gastro-intestinal infection, perhaps acquired from their mothers, for several days before symptoms appear and that during this time they may infect other infants (Watts' studies at the Charity Hospital in New Orleans.)

It is, therefore, important that we plan our nursery technique on the premise that every infant is potentially infectious.

Because of the premature infant's low resistance to infection we must be particularly vigorous in our precautions in caring for them.

In the newborn nursery there should be plenty of space between bassinets—at least six inches—preferably more.

Covers from one bassinet should never touch the bassinet on either side. Objects from one bassinet should never be laid in the bassinet next to it. It is highly desirable that each baby's equipment be kept in a separate cabinet. All material that is used for premature infants should be autoclaved.

Hand washing facilities should be easily accessible and always available. Soap and running water, plenty of towels and a waste paper basket or waste can are all that is necessary. If present day shortage of towels and laundry facilities make plenty of individual towels unobtainable, paper towels will do very well.

Hands should be washed with soap and water before and after examining or caring for each baby (preferably using a technique which considers the faucets contaminated). The nurse should not straighten out the covers in one bassinet, rearrange a baby's position in a second bassinet and remove a forgotten bottle from a third bassinet without washing her hands between times.

Nurseries should not be entered in street clothes. We should not pick up a baby and hold it against our shoulder and then put it down and pick up another baby and hold it against our shoulder in the same gown. Preferably we should have a separate gown for each baby. While not in use gowns should be hung with the outside folded inside on hooks sufficiently far apart so that the gowns do not touch.

If, of necessity, the same gown is used throughout, the sleeves should be up to the elbows and the baby, the bassinet, the contents of the bassinet and everything else the nurse handles should be kept from coming in contact with the gown. When the baby must be picked up to be bubbled, a clean cloth or blanket must be spread upon the shoulder before the baby is held there. Technique in handling this cloth to avoid contamination must be observed.

Cubicles are very desirable but they do not in any way replace good nursing technique, they are merely an adjunct to it. This is also true of the use of ultra violet light to cut down air-borne infection. By its use we can completely seal a cubicle to air-borne infection, but the need for clean hands and a clean gown remain as important as ever. The increased humidity necessary to a newborn nursery and especially to a premature nursery reduces considerably the effectiveness of ultra violet radiation as bacteria are killed much more quickly by exposure to radiation when they are dry.

Dry sweeping and dusting are definitely contra-indicated in a newborn or premature nursery, as this throws many bacteria into the air.

Vigorous shaking of mattresses or blankets or plumping of pillows are also very effective means of scattering germs over a large area and are, therefore, contra-indicated. Since pillows should not be in a nursery, we need not concern ourselves with that hazard.

Recent experiments in military hospitals show that a thin oil film on the floor cuts down the bacterial concentration in the air markedly. This

finding could probably be applied to nurseries effectively also.

Having taken all these precautions to prevent spread of bacteria from one infant to another while in their bassinets we do not wish to break our technique by caring for several infants at the same time on a common dressing table or bathing them at the same time on a common bathing table.

Ideally the infant is bathed, changed and cared for in its bassinet or on its own individual table. If this is not possible and we must use common bathing and dressing tables, it is extremely important that the surface upon which the infant is placed is clean and dry. A fresh sheet over a wet pad soon becomes contaminated by the surface beneath. A fresh sheet of heavy waxpaper placed between the working surface and each infant's spread will accomplish this purpose. These sheets of waxpaper can be autoclaved and reused if they have not become torn.

If infants are not bathed within the first few days and their skin handled as little as possible exposure to possible infection is reduced. Oil used for the babies should be autoclaved in small individual containers, as bacterial growth is possible in oil. Rubbing an infant vigorously with contaminated oil is an excellent way to spread skin infection.

The presence of an isolated instance of impetigo, gastro-intestinal infection or upper respiratory infection will occasionally appear in even the best regulated nursery, but epidemics of these infections should not appear if there are no breaks in technique and the infected infants are promptly isolated. The presence of an epidemic of mild impetigo cannot be considered as of no serious import since it not only indicates that nursing techniques are faulty and that more serious epidemics could therefore occur, but the infection may have serious consequences in a debilitated infant.

Since infection that is present may not be apparent for several days, infants brought into the hospital after delivery are always considered infected and kept in a room separate from the hospital-delivered infant. They should also be kept separate from the known infected infants removed from the normal infant nursery. Whenever possible, the nurse caring for these suspected and infected infants should not enter the nursery for normal infants.

Control of gastro-intestinal infection begins at the time of delivery. Care must be taken to

prevent the contamination of the infants mouth by the mother's feces, as the mother may be the carrier of organisms that will be pathogenic for the infant. The obstetrician's fingers should not be introduced into the infant's mouth as they are probably contaminated.

All procedures in formula preparation should be checked to eliminate all possibility of contamination of formula, bottles and nipples. One epidemic was found to have its source in the bottle in which sterilized nipples were kept. It was no one's duty to sterilize the bottle, and the moist gauze in the bottom had become contaminated. If the responsibility of every single procedure is definitely assigned to some individual there is less likelihood of breaks in technique occurring. A manual of techniques is desirable, as procedures will then be carefully thought out and potential dangers of infection eliminated.

Breast technique can be a source of infection especially if a common breast tray is used. An epidemic of severe gastro-enteritis among breast fed infants was traced to this source. The boric acid with which the breasts were cleansed prior to nursing became contaminated and actually the breasts were being bathed in a bacterial suspension just before infants were placed on the breast.

In one very excellent obstetrical hospital the breasts are cleansed only once before the infant first nurses, and thereafter the breasts are covered with a sterile gauze and then a piece of glassine both being held in place by a loose binder. This not only saves time but reduces the occasions upon which contamination could be introduced.

Indirect contact with the baby should also be avoided—another reason why no one should ever sit on the obstetric patient's bed. Children must be excluded at all times.

In the case of the premature infant it is usually necessary to collect the breast milk by some method of breast expression—manual, hand pump, or electric pump. The nurse should carry out this procedure until the mother is able and sufficiently well instructed to properly express the milk. All equipment must be sterile; the nurse should scrub her hands and good breast care should be given before beginning the procedure; the milk should be collected in sterile bottles and immediately refrigerated. If the milk is collected under sterile conditions it need not be boiled if it is to be used promptly, but if

there is any doubt as to whether or not there has been any contamination, the milk should be boiled.

If all the hazards up to now have been eliminated because of the excellence of our care, we still have a very potent source of infection that must be considered—the upper respiratory tracts of all people coming in contact with the infant.

The first method of control is to reduce to a minimum the number of people who come in contact with the infant—no visitors in the nursery or in the mother's room during feeding time, no nurses or attendants allowed in the nursery if they have upper respiratory infections, if they have recently cared for patients with respiratory or other streptococcal infections or childhood diseases. This means a nurse caring for well newborn infants should not care for other patients and when rotation of nurses is planned, the nurse's service prior to the nursery should be a clean service.

Throat cultures for hemolytic streptococci before admission to the service and at periodic intervals may assist in picking up carriers—but negative cultures should not be taken to mean that there is no need for care in preventing spread of respiratory infection.

There is considerable discussion as to the merits and disadvantages of wearing masks. The value of a mask depends upon the efficiency of the mask in preventing the egress of bacteria, and the technique with which it is handled. Breathing through a porous contaminated mask is equivalent to blowing bacteria into the air. A wet mask is a contaminated mask. If masks are used they should be discarded as soon as they have been removed and not worn about the neck and placed over the nose from time to time. Every time we adjust a mask we contaminate our hands and if we adjust our mask with contaminated hands we contaminate ourselves. I do not have to tell you that babies in the nursery should not be kissed, coughed at, or sneezed at, but I wonder how many of us brush hair out of our eyes or rub itches on our noses without becoming conscious of the fact that in doing so we have contaminated our hands? One would not do this at the operating table, and caring for the newborn is an important operation.

If we are to work successfully in a premature or newborn nursery we must develop this consciousness of all the possibilities of contamination. When it is thoroughly ingrained in us, we find the care of these infants is relatively simple rather than cumbersome and confusing.

Cancer and the General Practitioner

THE OFFICE DIAGNOSIS OF EARLY CANCER

Article No. 2 of a Series

No diagnosis of cancer is complete without a pathological report. Many diagnoses can only be made with the help of roentgenological or other laboratory studies. However, the general practitioner, in his own office, with the help of the instruments he uses every day, may detect many suspicious lesions and start the patient toward a final diagnosis.

What You Can See:

1. With the help of a pocket flashlight, a tongue depressor and a finger cot, the physician can detect early precancerous or malignant changes of the roof or floor of the mouth, of the tongue, cheek or tonsil.

2. A vaginal speculum and a good light will disclose lesions of the cervix and vagina.

3. A proctoscope will reveal a high percentage of the early malignant lesions of the rectum.

4. Careful observation, with a comparison of the two breasts, will reveal the elevated or retracted nipple, or the "dimpling" of the skin which are so frequently associated with malignant tumors. Any discharge from the nipple, clear, serosanguineous, or bloody, is a signal for further study. The elevation or distortion of the breast contour is a symptom which should not be ignored.

5. Thickened or scaly skin may suggest cancer as strongly as the persistent ulcerating sore.

What You Can Hear:

1. Persistent hoarseness may indicate cancer of the larynx.

2. Unexplained cough might mean cancer of the lung.

What You Can Feel:

1. Careful, systematic palpation of the breast will reveal many early lesions. Most lumps in the breast are not cancer, but since many of them are, ALL lumps should be investi-

gated. The painless lump is the dangerous lump.

2. A high percentage of the early rectal cancers are within reach of the palpating finger. The routine use of the gloved finger will change many diagnoses from "hemorrhoids" to "cancer" and give the patient a reasonable hope of a prolongation of life.

3. In the male, the rectal examination should include an examination of the prostate. A hardened, nodular prostate should be viewed with suspicion.

4. Bimanual vaginal examination will give the clue to lesions of the cervix, of the fundus, ovary and tube.

5. Enlarged lymph nodes—axillary, cervical, supraclavicular, or inguinal—are readily palpated and are significant. They may be evidence of metastatic cancer, or of primary malignant disease of the lymphoid system.

6. Malignant growths within the abdomen or pelvis can frequently be detected by deep palpation.

Cancer Diagnosis Requires Team Work:

Don't forget the importance of biopsy. Remember that the correct choice of site for biopsy, the adequacy of the specimen, and its freedom from mechanical distortion are factors which are essential to a correct pathological diagnosis. Don't overlook the contribution which can be made by the skilled roentgenologist. Don't hesitate to ask for a consultation in the presence of the unexplained symptom.

OBITUARY

MARION BATES LEVERETT, age 36, died October 19th in an auto accident near McGehee. Born March 17, 1909, at Bentonville, he attended Arkansas State Teachers College for four years and graduated from the University of Arkansas School of Medicine in 1934. He served an internship and a residency at City Hospital, Little Rock, and then located at McGehee. He was a member of the Rotary Club and of the Masonic bodies including the Scottish Rite Masters and the Shrine, and was a fellow of the American Medical Association. Surviving relatives are his wife, to whom he was married on July 25th, his mother and a brother, Dr. Chas. G. Leverett, of Fort Smith.

EDITOR'S NOTE: The accompanying article was prepared by the Committee on Cancer Control of the Arkansas Medical Society by direction of The Council.

It is one of several articles appearing in The Journal, addressed especially to physicians with the hope that they will elicit greater interest in the cancer problem and encourage the early diagnosis of malignant disease while it is still curable.

Publication of these articles is part of the Arkansas Medical Society's program of cooperation with the Arkansas Field Army, American Cancer Society, in education of the public and members of the medical profession on the subject of cancer control.

Additional articles will be presented in subsequent issues.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE chest X-ray, reinforced and supplemented by a wide and wise choice of other diagnostic aids, has brought us far along the road toward control of human tuberculosis. In this year of 1945 medicine pays its sincere respects to a half century of progress in the employment of an invaluable procedure. It is a happy circumstance that we celebrate at the same time the centennial of Wilhelm Conrad Roentgen's birth.

THE ROENTGEN RAY

X-RAY . . . new eyes for the physician . . . a new light to guide the hand of the surgeon . . . a light than can put on photographic film the record of damage done to a person's lungs by tuberculosis germs. These things we have in 1945. All because 50 years ago a scientist, at work in his laboratory, saw something he did not understand . . . but had sense enough to investigate . . .

The scientist was Wilhelm Conrad Roentgen, professor of physics at the University of Wurzburg. From his laboratory in 1895 came the announcement that he had discovered a new kind of light.

A New Kind of Ray

The professor was doing some experiments with cathode rays. His apparatus was a Crookes' tube, and an induction coil with a mercury interrupter—standard equipment for laboratories of the day. But, without knowing why, perhaps, Roentgen covered the tube with thick black paper so that no visible light could come through. He darkened the room completely. Then he applied current to the tube. To his amazement he saw a few brightly fluorescent crystals shining in the darkness on a table at some distance from the tube. How could this be?

He checked to see that there was no leak in the thick black paper. The fluorescence continued. He knew that the fluorescence was caused by some kind of light. But what kind? Invisible light?

What Roentgen saw had probably been seen

by many before him. But he was the first to grasp its true significance, and he went to work at once to investigate and interpret his mysterious light. For days he ate and slept in his laboratory. He did not want to be interrupted in his work of putting his discovery through one test after another. Finally, after eight weeks of intense work, he released a statement "On a New Kind of Ray."

Because of the ray's unknown quality he called it X-ray. But there were many things about it that were known to him. His experiments had shown that the ray could pass through wood, paper, flesh and many other materials through which ordinary light cannot go. He noted that the ray could go through some objects more easily than through others. For example, when he held his hand between the tube and a fluorescent screen he could see the shadow of the bones in outline. Substituting a photographic plate for the screen, he made a photograph of Mrs. Roentgen's hand. The result was the first X-ray picture—a photograph showing bones and a metal ring, but no flesh.

World Reaction

Public announcement of Roentgen's discovery brought instant attention. The world of science and medicine was quick to see the benefits that the new ray would bring to mankind. If Roentgen could use his "light that never was on land or sea" to make such a photograph of his wife's hand, why couldn't it be used to show broken and diseased bones, or even diseased organs of the body?

Magazines of the day carried articles that marvelled at, as well as made fun of, the discovery. News of Roentgen's rays rivalled the headlines of the Boer War in the daily papers. Who was

(The contents of this issue of TUBERCULOSIS ABSTRACTS, adapted for lay distribution, are available in the form of an anniversary "Roentgen" leaflet. If you wish a supply for your patients, please apply to the tuberculosis association in your community.)

this man whose name was suddenly known to everyone?

The Man

Wilhelm Conrad Roentgen was born in Lennep, Germany, on March 27, 1845. Home, however, was Apeldoorn, in Holland, where his merchant father moved the family when Wilhelm was three years old. His boyhood and early school days in Holland were like that of most boys. In fact, he was not considered a very good or serious student.

His first interest in science came at the Zurich Polytechnical School in Switzerland where he had the good fortune to study with August Kundt, an experimental physicist. Roentgen was preparing to be an engineer, but he spent much of his time in Kundt's laboratory. After he graduated in engineering, he took a degree of doctor of philosophy with a study on gases. As he put it, "I had two diplomas, one as an engineer and the other as a Ph.D. . . . however I could not bring myself to go into engineering . . . He (Kundt) told me to try physical science . . . In short, at the age of 24 years, and already practically engaged, I began to experiment and to study physics . . ."

He was "practically engaged" to Bertha Ludwig whom he married in 1872. The Roentgens then set out on a career which took them to universities in Wurzburg, Strassburg, Hohenheim, Giessen, and back to Wurzburg. At the University of Wurzburg he and Bertha spent their happiest years.

World Acclaim

The happy routine at Wurzburg was, of course, affected by the discovery of what his colleagues

now called Roentgen rays. He lectured on his discovery before the Physical Medical Society in Wurzburg early in January 1896. He was asked to give a personal demonstration of the new rays before Kaiser Wilhelm II. Other invitations came for him to speak, but Roentgen made a policy of refusing. Universities began to bid for his services. Finally in 1900 he accepted the call to head the Physical Institute at the University of Munich. A year later he received the Nobel prize for physics—the first year of the award.

For some twenty years until his death in 1923, in Munich, Roentgen saw phenomenal development of his rays. Industry, agriculture, art and countless other fields besides medicine and science fitted it to their uses.

X-ray in Tuberculosis

Benefits of Roentgen's ray are striking in the fight against tuberculosis. Before X-ray the physician had to depend upon sound and touch to find tuberculosis. By the use of X-ray, however, tuberculosis can be discovered in its early stages; treatment can be begun when it will do the most good. Today new and improved X-ray equipment makes low-cost X-ray examination of the chest possible for everyone. Such mass X-raying of apparently healthy people gives now hope for the complete elimination of tuberculosis.

To the zeal and creative genius of a scientist will go much of the credit for this promised conquest of disease. For, although X-ray equipment has undergone notable development, the principle of the X-ray itself remains the same as when laid down by Wilhelm Conrad Roentgen in his laboratory on November 8, 1895.

PATIENTS and their relatives very properly seek from their physicians the latest word on chemotherapy in tuberculosis. Inquiries reach flood stage whenever a new "success" story, often baseless or fragmentary, appears in the public press. Hinshaw and Feldman do the profession a service by presenting in condensed form the present status of drug therapy.

CHEMOTHERAPY IN TUBERCULOSIS

Efforts to develop an effective medicinal treatment for tuberculosis have undoubtedly been under way ever since this great human pestilence was recognized. The writings of ancient physicians contain repeated reference to herbs and other natural products alleged to be of thera-

peutic value. When Ehrlich and his contemporaries learned of the value of metallic salts in treating syphilis and parasitic diseases, hope was revived that some such preparation might be of aid in treating tuberculosis. The use of gold salts in the treatment of tuberculosis appears to have been an outgrowth of this line of research, but treatment with these has not withstood the test of time.

The unprecedented success of the sulfa drugs

Chemotherapy in Tuberculosis, H. C. Hinshaw, M. D., and William H. Feldman, D. V. M., *The NTA Bulletin*, Oct. 1945.

in treatment of many bacterial diseases of man renewed hope that tuberculosis might eventually yield to some such drug, and experiments on guinea pigs have given definite support to these hopes.

In 1939 and 1940 the sulfonamide drugs were shown to have some retarding effect on the rate of development of tuberculosis of guinea pigs, but in no instance did the drugs actually arrest the disease.

The drugs of the sulfone series (promin, diasone and promizole) were the first preparations to succeed in actually arresting tuberculosis in the highly susceptible guinea pig. This led to high hopes that sulfone drugs might be of value in the treatment of human tuberculosis. Several hundred tuberculosis patients have now received treatment with these drugs. Experience has tempered the early enthusiastic hopes of some physicians.

Most sulfone drugs, unfortunately, have a much more toxic effect on human beings than on guinea pigs. It is suspected that some sulfone drugs are altered in the human body and become ineffective. The possibility that sulfone drugs may be of aid in treatment of certain unusual varieties of human tuberculosis has not been excluded, but no definite place has been found for these drugs in treatment of the usual types of tuberculosis. The use of sulfone drugs under any circumstances has not progressed beyond the experimental stages.

The only sulfone drug which has been approved by the Federal Drugs Administration for sale is promin. This is available in jelly form for application on the surface of external tuberculous lesions. The effectiveness of promin has not been completely established even for this special use.

The amazing success of penicillin in treatment of several infectious diseases again aroused hopes that this or a similar antibiotic substance might be developed which would be effective against tuberculosis. Penicillin itself appears to have no effect on tuberculosis in guinea pigs or in man, but many other substances may be extracted from living micro-organisms which can suppress the growth of bacteria which produce disease.

Of these only streptothricin and streptomycin need now be considered. Streptothricin and streptomycin are both derived from soil-inhabiting fungi (*Actinomyces lavendulae* and *Actinomyces griseus*). Both restrain the growth of tubercle bacilli in the test tube. Streptothricin is somewhat toxic to guinea pigs and does not restrain the development of tuberculosis in these animals.

Streptomycin is well tolerated by guinea pigs, and extensive investigation has shown that it does inhibit in them the growth of experimental tuberculosis. In a third of the guinea pigs treated streptomycin apparently will eradicate advanced tuberculosis. In the other two-thirds treatment with streptomycin will bring the disease to a stage that can be regarded as arrested.

Adequate study of streptomycin in treatment of human tuberculosis remains to be done. Certain obstacles lie in the path of further progress along this line.

Many students of tuberculosis believe that results comparable to those noted in acute diseases, such as pneumonia, should not be anticipated in drug therapy of as generally chronic a condition as tuberculosis. In any disease successful treatment with drugs merely permits recovery by natural processes, and the promptness of such recovery depends on the nature of the disease process and the defensive powers of the patient.

Tuberculosis, however, by virtue of its usual chronicity produces destructive changes in tissues. Healing or repair of these tissues is exceedingly slow. Furthermore, in extensive tuberculosis of the lungs the destructive changes offer serious mechanical handicaps to healing. When such mechanical handicaps exist a corrective mechanical type of treatment, such as the conventional surgical collapse procedures, is used rather than treatment with a drug. The physician therefore does not hope for any alternative chemical remedy when surgery is indicated. Rest therapy, usually in the planned environment of a sanatorium, will probably remain the fundamental remedy for tuberculosis. No drug now available is likely to supplant rest completely. At this time it would appear foolish to discard the known benefits of rest treatment for the uncertainties of treatment with a new drug.

Patients are frequently eager to receive newly developed drugs even when the hope of benefit is remote. Usually it is impossible to secure such drugs under these circumstances due to present-day legal restrictions designed to prevent unwise distribution of drugs whose safety and efficacy have not been determined.

The distribution of new drugs for the necessary preliminary, laboratory and clinical trials is entirely in the hands of the manufacturers. Investigators receiving drugs for this purpose must have proper facilities to carry out the contemplated research accurately and safely. They also may be called on to account for all of the drugs supplied and to submit complete reports of their researches which eventually are forwarded to the Federal

Security Agency. Obviously, it is impossible for research workers to share their supplies of new drugs before the necessary research is completed.

The channels through which information about new scientific developments flows are direct and dependable. When a research worker has completed a project, he submits a report to the editors of one of the many medical and scientific journals, and usually publication of the results of his work follows within a few months. This enables other research workers and physicians to utilize promptly any of these new facts either in treatment of patients or in the development of new scientific information. The prompt publication of results is an ethical responsibility of the scientist to aid others engaged in similar problems. No one need fear that he will be denied any valuable secret remedy.

Newspaper reporters and authors of magazine articles recognize the news value of scientific discoveries. Occasionally they use sources of information less authoritative than those of established medical journals, to the chagrin of research workers and to the confusion of patients. Human lives may be lost needlessly if patients who have tuberculosis choose to forsake or refuse well-established methods of treatment in the hope of receiving remedies inadequately tried or of unproved effectiveness.

COMMUNIQUE

Sept. 25, 1945.

To the Editor:

It has been quite a while since I've written you and will drop you a line to let you know I am still alive and having to sweat it out in the peacetime army for a while.

Now that censorship is lifted I can tell you a bit about myself and my perigrenations in this country. As you suspected we were in the battle of the Salween for the opening of the Burma Road. Our prime mission was to take care of the Chinese battle casualties, and believe me there were plenty. Our hospital site was a former Japanese strong point and we utilized the tin shacks which the Japs kindly left behind intact in the revetments. We followed the beaten paths because the Japs have a way of leaving stuff behind that will take care of you in a hurry. We were quite near the battles for Lungling, Mungshih, Chifong, and Wanting. I don't know who outsmelled, the dead Chinese or Japs. We finished our mission there about March, 1945, and awaited orders. About that time the Japs were threatening the American air base in

Chihkiang, Western Hunan Province, and we were air lifted up here to Chihkiang where we have been since the 9th of May. We were on hand recently when the Jap surrender party came in here. The old Jap transport came in with red streamers flying and a bunch of our fighters on all sides. It was the first time I had seen the old red ball of the Rising Sun on a peaceful mission; the other times we always went in our holes.

We have about closed our hospital, running about 5-6 patients. Everything but a bare minimum is packed and turned in. We expect any day to get our orders for return to the USA. Hope to get back before Thanksgiving. Everybody is anxious to get out of this country, if you get what I mean.

It will be mighty nice to be on our way home as it seems such a long time since we were there.

The news as regards discharging medical officers from the Army is rather vague, these men being apparently in a category by themselves. Guess we will get the rough end of the cob as usually the medical department does. Can't see for myself there is need for so many medical officers now; in fact, they had plenty with nothing to do during the war. There is so little incentive to do much now—I feel the regular Army should take over now plus the Veterans Facilities—and who wants to be in either category.

This is probably the last letter you will get from me over here, and I want to take this opportunity to thank you for all the many nice things you did for me and I am sure it was for many others that you went out of your normal routine to help. I shall never forget it. I look forward, with pleasure, to seeing you when I get back to Arkansas. Hope to see you soon.

Sincerely your friend,

Hunter A. Causey, Maj., M. C.
21st Field Hospital,
APO 273, New York, N. Y.

FOR SALE

Due to illness, I am compelled to relinquish my practice and offer for sale at from 20 to 60 or more per cent discount from cost, numerous eye, ear, nose and throat instruments and items of specialist's equipment. Included is a specialist's hydraulic chair and a de luxe treatment table with a contained air pressure and suction pump. Anyone interested is invited to contact Dr. R. W. Whittier, 4 Lombardy Lane, Little Rock, phone 3-2410, for appointment to examine the items.

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EDITORIAL

JOURNAL BRANDS CHILD WELFARE ACT
'DANGEROUS' LEGISLATION

The Maternal and Child Care Act of 1945 now pending in Congress "appears to be a hastily conceived, potentially dangerous, piece of legislation," The Journal of the American Medical Association said in an editorial in its November 10 issue. "The objectives it seeks to reach are desirable," it said, adding: "The proposed measure would not obtain those objectives and would destroy much that has already been done toward their accomplishment."

The editorial said in full:

"Senate bill 1318, to make more adequate provision for the health and welfare of mothers and children and for services to crippled children, has not yet reached the stage of hearings. The bill is called the 'Maternal and Child Welfare Act of 1945.' Grants by the federal government to the states for encouraging preventive medical services and for aiding the crippled and for promoting maternal and infant welfare are now incorporated in our scheme of government. Under the E.M.I.C. program that prevails as a war measure, the chief of the Children's Bureau

controls a bureaucracy that functions in a totalitarian manner and without any of the restraints that should be developed in a democratic system of government. The present measure would perpetuate and expand this dangerous invasion of the field of medical care. The director chooses his or her own advisory boards and is not under any compulsion to pay the slightest attention to the recommendations of these boards. In the past such recommendations have been occasionally disregarded. In some instances members have been prevented from giving any publicity to the considerations of the board. Actions have been taken without any public announcement of the proposals to be followed. In many other ways the democratic process has been disregarded.

"Without an adequate study as to the needs of the individual states for maternal and infant services and the ability of the states to meet these needs, accurate determination of funds required is not possible. The proposals of the Hill-Burton bill, by contrast, require that each state create a special agency to be concerned with the construction of hospitals, health centers and diagnostic laboratories and that an adequate study of the need be made with the submission and approval of the plan in a public hearing before any grant is made. Under the proposed S. 1318 funds can be spent simply on approval by the chief of the Children's Bureau of any plan that any state submits. In the past, states have been told by the directors of federal bureaus the kind of plans they must submit before they even began thinking of drawing up plans.

"Section 103 of the new measure discusses further the approval of state plans. No limitation of any kind is made as to those who would be entitled to governmental or state aid. The bill simply proposes to grant maternal and infant care and care of the crippled to anybody in the state who applies. In the words of the bill, 'services and facilities . . . shall be available to all mothers and children who elect to participate in the benefits of the program.' If every mother and child elect to participate, the funds obviously are completely inadequate. The federal government might be asked to provide for the complete cost of maternal care to between 3,000,000 and 4,000,000 mothers annually and for the complete medical care of all children up to the age of 21 years. Assuming a total each year of 4,000,000 cases of maternal care, including children born, stillbirths, abortions and

miscarriages, at a minimum cost of \$50 per case, \$200,000,000 a year would be required for that purpose. This would not include the costs of hospitalization. Assuming in the United States 50,000,000 children under 21 years of age, with an average cost per child of \$10 a year for care, the total would be \$500,000,000, making the amount necessary for appropriation for this care \$700,000,000 annually. Adding the costs of hospitalization might involve another \$400,000,000. Unless some restriction is placed on the services to be rendered and the persons to whom they are to be rendered, the government is placed in the position of taking over completely the care of mothers and children and at an annual cost of more than one billion dollars without any special taxation to meet the purpose. This bill would apparently extend the proviso of the Social Security Act without increasing the taxation under the Social Security Act for the purposes it intends to serve. And to all of this must be added many millions more as the cost of administration.

"By the proposals of part 6 of section 103, as indicated on page 5, maternal and infant care and the care of the child both healthy and crippled would be standardized on a low basis. Such an action would inhibit progress in the care of mothers and children and would, in fact, depreciate the quality of the service rendered. The service given would be service to meet a fixed fee and not the best possible service that should be given according to the needs of the individual patient. Part 8 of this section provides for the introduction of the innumerable forms and reporting systems that bureaucracies require, placing on the medical profession a burden that results in making the form more important than the service rendered.

"Part 10 suggests that the same general advisory council shall serve in the state both the maternal and child health and crippled children's programs, which means the establishment of councils that would lack in expert knowledge, since the problem of the crippled child requires a type of expert knowledge quite different from that concerned with the maternal and child health.

"Section 104, which concerns payment to states, provides for simple matching appropriations which fail to take into account that many of our states are quite capable of handling their entire maternal and infant care problem for themselves; other states require federal aid far beyond anything that the state is able to match.

"Most pernicious in the entire measure is the provision for federal advisory committees. The chief of the Children's Bureau appoints his own advisory committee, which means that he appoints a committee that will do what he says. If he does not like what the committee does, he may encourage resignation and get another committee. Chiefs of bureaus have not in the past hesitated to enforce secrecy on members of their advisory committees as to publicity given to their considerations. A conference of state health officers is provided for also. The vast majority of the interest of the bill is in medical care; medical care is a physician's problem, not primarily a problem of public health officials. The committee of the Congress which reported out the Hill-Burton bill required that 'public health centers' be not concerned with medical care.

"In offering services for crippled children, the measure fails to take into account the varying definitions of crippled children that prevail in individual states. In some states a child with rheumatic fever is considered a crippled child; in other states it is not. The public annually provides through its contribution to the National Foundation for Infantile Paralysis, Inc., some \$15,000,000 to be used in research and locally for the care of the crippled child. Proposals are now being made to collect \$5,000,000 for Sister Kenny's fund. A survey conducted some years ago shows that there are almost a thousand different voluntary organizations for the care of the crippled in the United States, all of them collecting funds from the public for this purpose and all of them having thereby a personal philanthropic interest in the problem. Entrance by the federal government on a large scale such as proposed in this measure for the care of the crippled will depreciate and eliminate the public's interest through these volunteer organizations and thereby probably do more harm than good. Means should be found for coordinating the various activities now existing for the care of the crippled. The state should aid, but the state should not eliminate private philanthropic effort.

"For the crippled as for maternal and child care, this law would make the chief of the Children's Bureau a virtual dictator over the care of the crippled in the United States. The federal advisory committees in relation to the care of the crippled are, as with those in maternal and child care, simply tools of the chief of the Chil-

dren's Bureau.

"The Maternal and Child Care Act of 1945 appears to The Journal to be a hastily conceived, potentially dangerous, piece of legislation. The objectives it seeks to reach are desirable. The proposed measure would not obtain those objectives and would destroy much that has already been done toward their accomplishment."

VARIED TRAINING COURSES PLANNED FOR MEDICAL OFFICERS

With hostilities ended, medical officers in the armed forces, as well as hospitals and medical schools, have set machinery in motion to repair the holes torn in medical education by the war.

In a comprehensive review of specific plans to meet the educational needs of returning medical officers, the September 1 issue of The Journal of the American Medical Association says that all veterans, regardless of the age at which they entered the service and whether or not they had been in practice, are eligible under the G.I. Bill of Rights for a retraining course of one year at any institution approved by the Veterans Administration.

The Journal reports that both the Army and the Navy have already taken steps to provide postwar educational rehabilitation of medical officers.

Even before the defeat of Germany, steps were taken by the Army so that officers assigned to field, tactical and administrative positions would be given an opportunity to get a 12-week refresher course in one of the large general hospitals in this country. Many officers returning from overseas are now applying for refresher training.

"It is important," the Navy reports in The Journal, "that intensive training be afforded especially to young officers of the regular Medical Corps, who will become the leaders and 'key men' later in conducting the medical services of naval hospitals in the long postwar period for which provision must definitely be made."

The Council on Medical Education and Hospitals of the American Medical Association reports that an analysis of questionnaires returned by 21,029 medical officers concerning their postgraduate wishes indicates that approximately 20 per cent of this group will desire short term refresher and review courses of less than six months' duration.

Reports from medical schools, hospitals, medical societies and other agencies, The Journal says, give assurance of continued expansion of

educational programs in anticipation of postwar needs.

The University of Wisconsin Medical School has four plans for meeting the desires and needs of physicians returning from military service.

A training plan, termed flexible enough "so that it can start tomorrow morning or at any time a medical officer returns," has been adopted by the medical schools of Duke and North Carolina universities, the Bowman Gray School of Medicine of Wake Forest College and the cooperating North Carolina hospitals.

Three month full time courses have recently been organized by the medical schools of the universities of Wisconsin, Illinois and Iowa.

The Cook County (Chicago) Graduate School of Medicine has plans to accommodate returning medical officers by offering a large variety of courses at frequent intervals.

The University of Michigan Department of Postgraduate Medicine plans three courses of two months each, probably continuing throughout the year.

"Such institutions as Tulane, Johns Hopkins, Harvard, Tufts, New York Eye and Ear Infirmary, the New York Medical College, the New York Polyclinic and the University of Pennsylvania are continuing to offer organized courses," The Journal states, adding: "These examples emphasize the fact that, even though the staff physicians of all institutions are sorely taxed, they have been able to develop or continue opportunities for graduate education."

Fourteen state medical societies have initiated or are planning programs of continuation education for returning physicians.

"It is becoming increasingly important," The Journal says, "that the medical profession and hospitals continue their efforts to maintain and develop adequate facilities and opportunities for the continued training of veteran and civilian physicians."

Under normal peacetime conditions the approved hospitals in the United States provide opportunities for approximately 5,300 resident physicians. The Journal estimates that hospitals may be called on to furnish a total of about 12,000 residencies in the immediate postwar period.

MATERIAL FOR 84 BROADCASTS OFFERED BY A.M.A. TO LOCAL SOCIETIES

The Bureau of Health Education of the American Medical Association now has available an additional series of electrically transcribed radio

programs for use by local medical societies or by local health agencies with the approval of the local medical society. Entitled, "Guardians of Your Health," it consists of interviews and roundtable discussions featuring 33 public health authorities. The theme of the series is medical and public health cooperation for the better health of the nation. There are 13 broadcasts. Participants include Dr. Carl A. Wilzbach, health commissioner of Cincinnati, and Dr. Lester Taylor, Cleveland.

With the addition of these new transcriptions, this important and growing service of the Bureau of Health Education now offers a medical society seven series, a total of 84 broadcasts, enough to keep a medical society on the air weekly for almost two years.

"Medicine Serves America" deals with medical progress. "Live and Like It," a dramatized series, considers the everyday health problems such as weight control, sleep, prompt medical care and superstitions. "Before the Doctor Comes" consists of informal question-and-answer discussions with doctors about common symptoms occurring in the family. There is a series of 12 programs called "Dodging Contagious Diseases." For local societies wishing to remain on the air through the summer, 12 transcriptions are available under the title "Keep Cool," dealing with summer problems such as sun tan, swimming, bugs, poison ivy and hay fever. "More Life for You," in which 24 medical and surgical authorities are interviewed, considers the health problems of middle life.

The platters are available on loan by application to the Bureau of Health Education, 535 North Dearborn St., Chicago 10. There is no charge to the local group except payment of return shipping charges. The local societies must make all local broadcasting arrangements.

RANDOM THOUGHTS OF THE SECRETARY

October 15th. For the first time making a proper sort of trip to Little Rock—Braniff carries us down comfortably in 47 minutes which lowers our record and suits us indeed. Meeting with the rehabilitation advisory council where considerable agreement on the fee schedule is shown and the business of the session quickly concluded. Returning, having as co-passenger, Goldstein on his second flight, but not to be heckled at that.

October 17th. With President Archer attending a most successful public forum in Kansas City on the Wagner bill with Fishbein as moderator and Bauer and Congressman Biemiller as discussants. Here is a method of bringing to the public in an appealing form the pros and cons of political medicine, a method which cannot but succeed if the American people think and we still believe that a majority do.

October 18th. Arriving Chicago at 2:30 A. M., an hour when there is no line at the Palmer House registration desk, and after but a short bed rest, up and busy on the affairs of the Council on Medical Service and Public Relations to a late hour, hearing, at intervals, Fitzgibbon's joke of the clues to the murder.

October 19th. Today come the state presidents and secretaries for conference and by round tables are many subjects presented, ours with General Hawley being the only one not on schedule, and the general being somewhere between Washington and Chicago on an army plane which flies with none of the schedule regularity of commercial lines.

October 20th. Closing the conference of presidents and secretaries, all agreed that it has proved worth while for discussion of some of the matters which harass medicine and medical men in these days. So flying at 1,000 feet with Braniff, Chicago to Kansas City, completing President Archer's first plane trip and able to report his complete satisfaction despite his long-standing love for the Kansas City Southern.

October 22nd. Stanley Gates visits today on reconnaissance for his new position as medical director of the Veterans Administration at Fort Smith and we predict no dull and hum-drum days in that office henceforth. In the evening visited by Ken Thompson, late of Austria and the Riveria, by courtesy of the 11th Armored Division, quite willing to talk of army experiences but displaying no great interest in returning to practice which will be disturbing to the Cooper Clinic.

October 25th. William (Bill) Harrell who has been in Panama long enough to be elected president, comes by awaiting separation at Chaffee and brings reports of the imminent release of Futrell and others, some few of whom will doubtless call on us. Happy today by a phone call from Hugh Mobley who has seen all of the small spots in the Central Pacific but still finds Arkansas to look the best.

October 26th. Heading north tonight and finding Holmes of the Cooper Clinic most affable over a weekend vacation at Burns Gables. Enroute we stop over at the youngster's insistence to see Mansfield make a touchdown over Bentonville and thence on into Joplin for the night.

October 27th. Crossing Missouri and Iowa today finding US 71 just as curving and up hill and down as in Arkansas, possibly more so.

October 28th. Arriving South Dakota this afternoon and about the countryside to look over the pheasant situation in brisk 30° weather, quite a change from Arkansas.

October 29th. Taking to South Dakota's corn and grain fields this day and finding it somewhat of a problem to march these one mile long fields, but far more difficult to turn around and march back again, so that sunset finds us ready and willing to go home with a more complete realization of just what physical effort has been expended to shoot our limit of pheasants.

October 30th. Which page of The Gazette do you read? October 30th issue, page 9—"Japs Hail Truman's Address"—page 11—"No Jap Comment on Truman Speech."

October 31st. Less painfully aware of our muscular system we take to the fields in greater spirit today and are rewarded by the best day's shoot of the trip and where we once thought of our physical discomfort, today we have naught but appreciation for the thrills of hunting South Dakota's majestic game birds and make plans for the 1946 season.

PROCEEDINGS OF SOCIETIES

The Sebastian County Medical Society was addressed November 13th by members of the faculty of the University of Arkansas School of Medicine, a symposium on "Burns"—Prevention, Vida H. Gordon; Systemic Effects, Walton Moses, and Treatment, W. G. Cooper.

D. W. Goldstein, Secretary.

The Washington County Medical Society was addressed by C. P. Sisco on November 6th with X-ray case reports.

Ruth Ellis Lesh, Secretary.

The First Councilor District Medical Society elected C. H. Reagan, Marked Tree, President; and Joe Verser, Harrisburg, Vice-President, at its October meeting.

The Ouachita County Medical Society met in regular monthly session November 8 at the Camden Hospital. The program consisted of medical motion pictures on physical diagnosis.

R. B. Robins, M. D., Secretary.

The Benton County Medical Society met in dinner session at Siloam Springs November 8th with C. S. Wilson leading a discussion on "F. L. U."

Geo. M. Love, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro November 1st for the following program: "Discussion of Army Facts," Joe Verser, Harrisburg, and a motion picture of scenery in army life by C. H. Reagan, Marked Tree.

J. H. McCurry, Secretary.

The Chicago Medical Society will hold its ANNUAL CLINICAL CONFERENCE at the Palmer House, Chicago, Illinois, March 5, 6, 7, 8, 1946. All physicians are invited to attend this Conference and hear the outstanding specialists from all sections of the country discuss subjects of major interest.

The First Councilor District Medical Society met in Jonesboro October 16th for the following program: "Japan," J. P. Womach, Jonesboro; "The Liver," Lamar McMillin, Little Rock, and "Tropical Medicine," C. H. Winkler, M. C., A. U. S.

J. H. McCurry, Secretary.

PERSONALS AND NEWS ITEMS

C. Ray Williams has been released from military service and has returned to Morrilton for practice.

Robert M. Kelly, Sheridan, recently released from military service, has located at Lonoke for practice.

Capt. Hunter C. Sims, Blytheville, is now stationed at Regional Hospital, Camp Robinson, Arkansas.

Lt. Kenneth G. Jones, El Dorado, is now stationed at U. S. Naval Personnel Separation Center, Nashville, Tennessee.

Warren S. Riley has been released from military service and has returned to El Dorado for the practice of radiology.

Dr. and Mrs. Chas. T. Chamberlain, Fort Smith, spent a November vacation in Mississippi.

Chas. G. Leverett has moved from Fort Smith to McGehee.

L. N. Bollmeier, Hot Springs National Park, was leader of the Personality Development course, held as a part of the Indiana State Conference on Social Work, at Bloomington, November 7th.

R. B. Robins, Camden, recently took special work in surgery at Chicago.

H. H. Smith, Fort Smith, spent a November vacation in New Orleans.

Lindsley F. Billingsley has moved from Monticello to Colorado Springs.

Brooks R. Teeter has been released from military service and has returned to practice at Russellville.

Jett O. Scott has been released from military service and has returned to practice at Hot Springs National Park.

Frank M. Burton, who has been taking post-graduate work at the Mayo Clinic since release from military service, has returned to practice at Hot Springs National Park.

D. E. White has been elected a director of the El Dorado Kiwanis Club.

Lt. Melvin R. McCaskill, Little Rock, is now stationed at the Naval Hospital, Newport, Rhode Island.

Wm. F. Gerber, formerly of Little Rock, is now serving as an assistant in neurosurgery to Olam R. Hyndman, Denver, and is an assistant in neurosurgery at the University of Colorado School of Medicine.

Joseph O. Boydstone, Hot Springs National Park, who entered military service in 1940 and served as division surgeon of the Fifth Armored Division, has been released from service.

James W. Amis, Fort Smith, has been released from service as Commander, Naval Medical Corps Reserve, and has returned to practice.

Alfred H. Hathcock has been released from military service and has returned to practice at Fayetteville.

J. B. Futrell has been released from service and has returned to practice at Rector.

James D. Huskins has been released from military service and has returned to practice at Siloam Springs.

"Bilateral Matsoiditis in Eight Weeks Old Baby, June 1945," by Paul L. Mahoney, Little Rock, appears in the November Southern Medical Journal.

Louis K. Hundley, formerly of the State Trachoma Control Service, has been released from military service and is temporarily located at 2705 State Street, Little Rock.

Chas. P. Wickard has been released from military service and has returned to practice with offices in the Donaghey Building, Little Rock.

Merle T. Crow has been released from military service and has returned to practice at Warren.

Elmer J. Ritchie has been released from military service and has returned to practice in Little Rock.

F. J. Scully, Hot Springs National Park, has been elected Knight Commander of the Court of Honor, Scottish Rite Masons.

Joe Verser has been released from military service and has returned to practice at Harrisburg.

Henry V. Kirby has been released from military service and has returned to practice at Harrison.

W. Merle Woods, Huntington, has been released from military service.

D. W. Goldstein, Fort Smith, spent a November vacation in New Orleans and on the Mississippi Gulf Coast.

Ellery C. Gay has been released from military service and has returned to practice with offices at 838 Donaghey Building, Little Rock.

R. J. Calcote, Little Rock, has been released from service in the Naval Medical Corps after four years of service, and has returned to the practice of Ophthalmology at 541 Donaghey Building.

W. B. Harrell, formerly of Little Rock, who was on duty with a general hospital in Panama for nearly four years, has been released from military service.

The following have been released from military service and have returned to practice at Hot Springs National Park: W. W. Chamberlain, Jack R. Ellis and E. Driver Rowland.

Robert F. Hyatt and C. Lewis Hyatt have been released from military service and have located at Monticello.

Hugh Mobley, formerly of Searcy, has been retired from military service and is temporarily located at Little Rock.

Lt. Ben D. Means, Little Rock is now stationed at Beaumont General Hospital, El Paso, Texas.

Capt. J. W. Sneed, Searcy, is now stationed at Camp Wolters, Texas.

F. Walter Carruthers, Little Rock, attended the recent meeting of the Clinical Society of Bone and Joint Surgeons in Cincinnati.

J. A. Henry, who has been on the staff of the State Sanatorium for the past three years, following a residency in obstetrics and gynecology at Grady Hospital, Atlanta, is now associated with Roy Millard at Russellville.

G. D. Murphy, Jr., has been released from military service and has returned to practice at El Dorado.

H. W. Sawery, Van Buren, hunted deer in Colorado during October.

Fred H. Krock, who recently returned from duty at a naval hospital in the Russell Islands, has been released from service and has returned to practice with the Holt-Krock Clinic, Fort Smith.

M. H. Scott, Fort Smith, hunted deer in Colorado during October.

Major Stanley M. Gates has been assigned as medical officer of the Fort Smith office of the Veterans Administration.

J. Kenneth Thompson has been released from military service and has returned to practice with the Cooper Clinic at Fort Smith.

W. D. Easterling has been released from military service and has returned to practice at Lake Village.

E. P. McGehee, Jr., has been released from military service and has located at Lake Village with the Lake Village Infirmary.

Capt. C. R. Chestnutt, Little Rock, is stationed with an air evacuation holding station at Atsugi Airfield, Yokohama, Japan.

R. L. Hopkins, DeQueen, has retired from practice and has moved to Maitland, Florida.

W. E. Turner, Jr., has been released from military service and has returned to practice at Piggott.

W. H. Daubs has moved from Foreman to Texarkana where he has offices in the Beck Building.

John M. Samuel, Little Rock, has been released from military service and is now taking post-graduate work at the University of Wisconsin School of Medicine and will continue work at the Mayo Clinic and Cook County Hospital before returning to practice at Little Rock in March, 1946.

Neil Compton, Bentonville, now stationed at Naval Hospital, Memphis, has been promoted to lieutenant-commander.

The following were registered at the Cincinnati session of the Southern Medical Association: Hoyt R. Allen, Little Rock; Hoyt Choate, Little Rock; O. C. Melson, Little Rock; Roy I. Millard, Russellville; H. E. Mobley, Morrilton; J. P. Price, Monticello and R. H. Rigdon, Little Rock.

S. S. Beaty, England, has been appointed part-time VD clinician for the Lonoke County Health Unit.

John M. Smith, Little Rock, has been appointed part-time VD clinician at Little Rock.

Doyle W. Fulmer, who saw action in the African and Italian campaigns, being wounded near Cassino, has been discharged from military service and has reopened his office at 820 Donaghey Building, Little Rock.

Lt. Col. A. M. Washburn, Little Rock, has received the Bronze Star for services in the Naples port area.

CORRESPONDENCE

Piggott, Arkansas

November 12, 1945

To the Editor:

Received your letter of congratulations today. However, I am not sure that I am relieved from the Army. Anyway, I am on terminal leave and am planning on practicing with my father at Piggott. I will "feel sure" after I get the final papers.

I have enjoyed "Random Thots" very much and have received it and The Journal regularly.

It has been some time since I have written you so again I wish to thank you for all you have done for all of us who have been in the service.

Sincerely yours,

Wylie E. Turner, Jr.

Cancer and the General Practitioner—

THE DOCTOR'S OPPORTUNITY AND RESPONSIBILITY

The Doctor Is Asked:

If we succeed in teaching people the importance of prompt investigation of apparently trivial symptoms, it is obvious that with increasing frequency the physician will be consulted by people who do not have cancer.

In one experimental project designed to test the value of routine examination and prompt investigation of slight variations from normal good health, 1,103 women were examined with only 34 found to be suffering from cancer.

BUT another 267 were found to have benign tumors and 436 had some other disease or condition which required further investigation and care. Only 316, or less than 29 per cent, were reported as having "no pathology." Of the 34 cases of malignant disease discovered, the majority were sufficiently early to justify a high degree of optimism as to the results of therapy.

Included in this same experiment were 263 women who reported no symptoms. Of these, 50 were found to have benign tumors, 4 had malignant tumors and 15 had other diseases.

The Doctor's Opportunity

The cancer patient usually consults the family physician first. The opportunity—and the responsibility—for the discovery of early, curable cancer usually rests with the general practitioner.

The discovery of these early lesions, or the ruling out of cancer by the discovery of some other explanation for the patient's symptoms, gives the physician an opportunity to practice preventive medicine of the highest value and to demonstrate his competence to assume responsibility for the general well-being of his patients and of the community.

The Doctor's Responsibility

The general practitioner who is asked by his

patient "Do I have cancer?" is confronted with a grave responsibility. What can such a patient expect to receive from the physician in whom he has placed his confidence?

1. **A Sympathetic Hearing.** The patient who is concerned about the significance of some apparently trivial symptom or condition should not be dismissed lightly as a hypochondriac, a neurasthenic or the victim of cancer phobia.

The cure of cancer depends largely upon early diagnosis and prompt treatment. The symptoms of early cancer usually are just those vague indefinite aberrations which are so difficult of explanation. The patient without cancer or other constitutional or systemic disease should of course be reassured.

But the alert and conscientious physician will not offer such reassurance until he himself is assured that the patient's concern is without foundation. This assurance cannot be obtained without:

2. **A Careful History.** Since the evidence of early malignant disease is so frequently merely the evidence of some slight change in what has previously been normal for that particular patient, a carefully taken history can be of as much value in establishing a diagnosis as are physical examination and laboratory tests.

3. **A Thorough Examination.**

4. **Consultation When Needed.** The diagnosis of early malignant disease can seldom be accomplished on the basis of history and physical examination alone. Cancer which makes its own diagnosis is usually too far advanced to offer a favorable prognosis. Even the cancer specialist must depend upon the consultative help of such others as the pathologist, the roentgenologist, the practitioner in special fields of surgery.

The general practitioner should feel no hesitation in referring his patient to a specified consultant for the explanation of any doubtful symptom.

EDITOR'S NOTE: The accompanying article was prepared by the Committee on Cancer Control Education of the Arkansas Medical Society.

It is one of several articles which will appear in The Journal, addressed especially to physicians with the hope that they will elicit greater interest in the cancer problem and encourage the early diagnosis of malignant disease while it is still curable.

Publication of these articles is part of the Arkansas Medical Society's program of cooperation with the Arkansas Field Army, American Cancer Society, in education of the public and members of the medical profession on the subject of cancer control.

The second article, which will appear in a future issue of The Journal, will deal with the office diagnosis of early cancer.

1946 ANNUAL SESSION PAPERS

Members desiring to present papers at the 1946 annual session of the Society are asked to write Dr. Hoyt R. Allen, 826 Donaghey Building, Little Rock, now in order that time may be made available.

MEMBERS IN MILITARY SERVICE*

Arkansas County

Milton C. John, Jr.
C. W. Rasco, Jr.
C. M. Wassell
Thomas S. Van Duyn

Ashley County

H. H. Atkinson
E. G. Burt
W. A. Reginer
James H. Moseley

Benton County

M. W. Chastain
J. D. Huskins
James L. Pickens
H. C. Baker, Jr.

Boone County

Ulys Jackson
H. V. Kirby
O. B. McCoy
Jean Carl Gladden

Bradley County

Charles D. Belcher
Marvin B. Crow
Merle T. Crow

Carroll County

W. H. Newkirk

Chicot County

Charles G. Leverett
Walter D. Easterling

Clay County

J. B. Futrell
W. E. Turner

Columbia County

H. K. Carrington
Charles L. Weber

Conway County

C. R. Williams

Craighead-Poinsett

E. R. Barrett
W. E. Berry
M. E. Blanton
John C. Faris
Charles P. Harris
J. O. Pierce
C. H. Reagan
P. T. Stroud
Joe Verser
James O. Cooper

Crawford County

S. S. Kirkland

Crittenden County

A. C. Parker, Jr.
S. D. Bond, Jr.

Cross County

Thomas G. Price

Dallas County

W. P. Ward

Desha County

J. H. Hellums

Drew County

B. Z. Binns
Robert D. Dickens
Stanley M. Gates
J. B. Holder

Faulkner County

Max Baldridge
H. C. Brooke
E. L. Dunaway
L. S. Dunaway
R. L. Taylor

Garland County

Frank M. Adams
Earl J. Bieri

Jos. O. Boydstone
Howell Wm. Brewer
Milton M. Bowman
Hollis H. Buckelew
Frank M. Burton
Warren W. Chamberlain
Gaston A. Hebert
Chas. H. Lutterloh
E. Driver Rowland
Jett O. Scott
Raymont E. Smallwood
A. Geo. Sullivan
Euclid M. Smith
Ulferi R. Ulferts
H. K. Wright
Jack R. Ellis

Grant County

Miles F. Kelly
Robert M. Kelly

Greene County

J. W. Lamb

Hempstead County

J. W. Branch
H. H. Holt
J. G. Martindale
Jim McKenzie

Independence County

O. B. Barger
J. C. Barnett
W. W. Calaway
C. A. Churchill
J. J. Monfort
R. E. Weddington

Jefferson County

Van C. Binns
H. T. Capel
H. A. Causey
R. E. Maynard
A. R. Russell

Johnson County

R. H. Johnston
J. M. Kolb
Guy P. Shrigley

Lawrence County

J. B. Elders
Max Hughes
J. F. Jackson

Lincoln County

L. T. Taylor
H. W. Thomas

Lonoke County

F. A. Corn

Miller County

J. W. Burnett
K. H. Kemp
J. T. Porter

Mississippi County

J. E. Beasley
J. W. Dorman
L. L. Hassell
T. K. Mahan
L. D. Massey
K. T. Moseley
H. C. Sims
J. M. Walls

Nevada County

G. G. Hairston
O. G. Hirst
J. W. Kennedy

Ouachita County

Perry Dalton
W. C. Magness
S. B. Thompson

Phillips County

J. Q. Blackwood
W. B. Connolly
F. S. Dozier
W. W. Johnston
Jack King

A. H. Maddox
J. W. King

Pope-Yell County

E. P. Griffin
Kent Grace
Brooks R. Teeter

Prairie County

J. H. Calley
Wm. M. Parker

Pulaski County

J. Leo Aday
John S. Agar
T. Dale Alford
P. R. Anderson
H. M. Armstrong
J. B. Askew
D. H. Autry
B. A. Bennett
Ross Bizzell
Gerald Blankfort
Robert M. Boyle
B. P. Briggs
T. D. Brown
L. M. Byrd
R. J. Calcote
J. Paul Champion
R. C. Cook
Ellis P. Cope
Eugene H. Crawley
P. T. Cullen
G. O. Dean
J. K. Donaldson
D. W. Dykstra
John P. Eaton
H. D. Fowler
H. L. Fuller
Doyle W. Fulmer
Ellery C. Gay
R. T. Goodwin
J. E. Greutter
D. R. Hardeman
W. B. Harrell
J. Donald Hayes
H. A. Higgins
Harlan H. Hill
Henry G. Hollenberg
Harlan Holmes
L. Gordon Holt
Paul W. Hoover
John M. Hundley
C. L. Hyatt
R. F. Hyatt
Robert H. Jackson
Jerome S. Levy
Virgil E. Lyons
Art B. Martin
Ben D. Means
R. D. Moore
Dollie Morgans
Vincent Mazzanti
Melvin McCaskill
M. D. McClain
R. E. McLochlin
J. M. McPheeters, Jr.
J. M. Nisbett
Ewing Nixon
W. R. Parsons
Leo E. Peters
Sam Phillips
W. E. Phipps
B. V. Raley
T. J. Raney
C. C. Reed, Jr.
J. T. Rhyne
W. C. Riggins
Lloyd F. Ritchey
E. J. Ritchie
John N. Roberts
Clyde D. Rodgers
J. M. Samuel
J. H. Sanderlin
S. M. Sanford
Hugh W. Savage
Harvey D. Shipp
C. F. Shukers

Joseph A. Sleet
H. H. Smith
John M. Smith
John W. Smith
Walter M. Smith
John Stathakis
George Steinkamp
Alvin W. Strauss, Jr.
P. E. Thomas
R. L. Turnbow
Walton R. Warford
A. M. Washburn
Asa C. Watson, Jr.
C. P. Wickard
E. Hays Wilkes
Robert G. Young

Randolph County

W. O. Loftis

St. Francis County

C. N. Bogart

Saline County

Ashby Steele

Sebastian County

J. W. Amis
C. H. Finney
T. P. Foltz
L. M. Henry
Rogers Hedrick
J. D. Johnson
F. H. Krock
Ben H. Pride
R. E. Schirmer
W. L. Shippey
G. F. Stocker
G. L. Wilson
W. M. Woods
J. K. Thompson

Union County

Vincent M. Cox
J. W. Harper
Gus W. Jones, Jr.
Kenneth G. Jones
H. J. Mayfield
G. D. Murphy, Jr.
Doyle Patton
J. H. Pinson
W. S. Riley
J. K. Sheppard
Jack Murff Sheppard
J. B. Wharton, Jr.

Sevier County

Lee Andrew Dean
C. C. Hanchey
G. L. Kimball

Washington County

Alfred Hathcock
V. O. Lesh
Richard Miller
W. J. Butt
Neil Compton
James F. Lewis
C. S. Paddock
Fount Richardson
Friedman Sisco
Louis K. Hundley

White County

T. L. Adair
Hugh Mobley
Jos. L. Rector
John L. Ruff
J. W. Sneed

Woodruff County

F. C. Maguire
W. T. Wilkins

KILLED IN ACTION

WILLIAM M. KOBER, Little Rock
HIRA C. BAKER, JR., Garfield

August 29, 1944

December 18, 1944

* This is a complete roster of members of the Society who served in the armed forces during World War II. It is urged that corrections or errors be brought to the attention of the Secretary immediately.

WOMEN'S AUXILIARY NEWS

Mrs. John Spencer Is Speaker for Medical Auxiliary

Auxiliary to the Bowie and Miller Medical Society met at the home of Mrs. Roy Baskett for its October meeting. Co-hostesses were Mrs. Daubs, Mrs. Daniels and Mrs. Allen Collom.

The meeting was called to order by Mrs. William Hibbitts, president, and after the invocation, minutes were read. The treasurer's report was given.

The date of the Christmas party was changed from December 24 to December 14.

Mrs. J. T. Robinson spoke on the subject, "Legislative Problems." Mrs. Harry Murry told of her visit to a district meeting held in Camden.

Mrs. John Spencer was the guest speaker, using as her subject, "Alaska." Mrs. Spencer, daughter of the late Dr. W. B. Martin, eminent doctor at the Kellogg Sanitarium, delighted the audience with her informative, interesting presentation of the subject which she illustrated with maps.

The speakers gave souvenirs of Alaska as prizes for the right answers about her subject. Mrs. P. H. Phillips won the prize for the right answer to what the United States paid for Alaska; Mrs. E. M. Watts for the number of mountains, and Mrs. Harry Murry for the name of the man inventing frozen foods.

For the social hour, guests were invited to the dining room where dainty refreshments were served with Mrs. William Hibbitts pouring coffee.

Medical Auxiliary Outlines Program

A six-point program for the coming year was outlined by the Woman's Auxiliary to the Arkansas Medical Society, October 9th at a one-day meeting in the Albert Pike Hotel. Mrs. E. L. Thompson, Hot Springs, president, presided.

The program will include re-establishment program for returning members of the Arkansas society and their wives; the continued promotion and distribution of Hygeia; the advancement of health education; the close attention to all controversial legislative matters affecting the medi-

cal profession; postwar problems of medical economics; and improvement in public relations between organized medicine and the laity.

Mrs. Thompson appointed a Nominating Committee with Mrs. A. C. Shipp, as chairman. Members are Mrs. E. D. McKnight, Brinkley; Mrs. H. K. Wade, Hot Springs; Mrs. P. H. Muse, Junction City; Mrs. Carl Hanchey, Wilmot.

The meeting opened with a prayer by Mrs. C. E. Kitchens, DeQueen. Business was devoted to reports of officers, councillors and committee chairmen.

Members of the Sebastian County Medical Society Auxiliary will prepare a Christmas box for a patient at Camp Chaffee hospital, Mrs. W. F. Rose, Auxiliary publicity director, reported following the November luncheon meeting, November 12th. Mrs. H. B. Thompson and Mrs. S. P. Stubbs were hostesses. Luncheon was served at 12:30 o'clock.

Mrs. B. L. Ware, vice president, presided in the absence of the president, Mrs. D. W. Goldstein. Following the business meeting, Mrs. Ware turned the meeting over to the program chairman. Mrs. Everett Moulton, who presented Mrs. Miles Everett Foster, who read an essay, "Socialized Medicine a Menace to Public Welfare," written by Mose Smith III, a sophomore of senior high school, who was first in a state-wide essay contest sponsored by the State Medical Auxiliary last spring. He received a \$100 war bond.

Members present at Monday's meeting were Mrs. B. L. Ware, Mrs. H. B. Thompson, Mrs. S. P. Stubbs, Mrs. J. S. Southard, Mrs. W. L. Shippey, Mrs. S. J. Wolferman, Mrs. Mabel Scott, Mrs. Everett Moulton, Mrs. M. E. Foster and Mrs. W. F. Rose.

The next meeting will be held the second Monday in January, Mrs. Rose announced.

Mrs. W. F. Rose, Publicity Chairman
Sebastian County Medical Society Auxiliary

BOOK REVIEWS

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1944. Cloth. Price, postpaid, \$1.00—Pp. 238. Chicago: American Medical Association, 1945.

The Council on Pharmacy and Chemistry recently issued

the thirty-sixth edition of the Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association. This volume contains in compact form not only the reports of the Council which have been published in THE JOURNAL during the past year but also some additional reports which were not considered of sufficient importance to be published in THE JOURNAL.

The present volume is quite unusual in that it contains not one report concerning a product found unacceptable. However, there are five reports on the omission of products from New and Nonofficial Remedies, mainly for the reason that they have outlived their usefulness, and in most cases the manufacturers have expressed their lack of desire for continued inclusion of their brands. These reports are:

Erysipelas Streptococcus Antitoxin and Antierysipelas Serum omitted from New and Nonofficial Remedies; Ichtyammol Preparations; Isoral, Ichthynat, Ichthyol, Omitted from New and Nonofficial Remedies and Soluble Ichthammol, Not Within the scope of New and Nonofficial Remedies; Iodine Compounds: Iodalbin and Stearodine; Iodo-Casein; Iothion; and Iodostarine; Omitted from New and Nonofficial Remedies! Mercuric Oxycyanide, Mercuric Salicylate and Mercuric Succinimide Omitted from New and Nonofficial Remedies and Status of Antimeningococcic Serum and Meningococcus Antitoxin.

This volume is a veritable mine of information on subjects of general interest to the physician, pharmacist and the pharmaceutical manufacture. The reports concern deliberations of the Council on general subjects ranging from the use of the Electron Microscope to the appraisal of new drugs. The report on Pathogenic Bacteria, Rickettsias and Viruses as shown by the Electron Microscope is noteworthy as being pioneer work in this field. The report on the Current Status of Prophylaxis by Hemophilus Pertussis Vaccine was prefatory to the acceptance by the Council on various brands of pertussis vaccines and pertussis vaccine combinations. The valuable and highly informative article on Local Treatment of Thermal Cutaneous Burns reports on the latest and best work in this field.

New and Nonofficial Remedies, 1945, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1945. Cloth. Price, postpaid, \$1.50. Pp. 760. Chicago: American Medical Association, 1945.

Each year a revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January first is published in book form under the title of "New and Nonofficial Remedies." The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary nonofficial articles, simple pharmaceutical preparations, and other articles which require retention in the book.

Some fifteen or twenty newly accepted preparations appear in the 1945 volume. A large number of preparations have been omitted, mainly brands of official preparations. The general statement concerning these pharma-

ceutical preparations has been retained for the information of physicians.

As stated in the preface, the entire book has been scanned to bring it up to date with the latest medical knowledge. It is noted that the section "Articles and Brands Accepted by the Council but Not Described in N. N. R.," a vestigial remnant of which appeared in the 1944 volume, has now entirely disappeared.

This section appeared to have been a catch-all for brands of official articles the acceptance of which the manufacturers desired for reasons of prestige, and miscellaneous preparations which were not necessarily or importantly within the Council's scope and which did not require detailed description. Many of the official preparations have been transferred to the body of the book and the others deleted. One is struck by the large amount of medical information contained in this volume. Certainly no other compendium of comparable price contains so much.

A Manual of Surgical Anatomy: Prepared under the auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council,

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KEEP 'EM MOVING

GET 'EM HOME



BUY

VICTORY BONDS

by Tom Jones and W. C. Shepard. 195 pages with 267 illustrations on 138 figures, 153 in colors. Philadelphia and London: W. B. Saunders Company, 1945. Price \$5.00.

This is an excellent book with accurate illustrations by master medical illustrators. The explanatory index adds value to the informative illustrations. This book will be of much help to every general surgeon.

Common Ailments of Man. Edited by Morris Fishbein, M.D., Editor, The Journal of the American Medical Association and of Hygeia, the Health Magazine. Pp. 177. Price \$1.00. New York: Garden City Publishing Co., Inc.

This volume is a reprint of sixteen articles that have appeared in Hygeia and is intended for the instruction of the laity. Some of the conditions are headache, neuritis, varicose veins, anemia, constipation and backache. Authoritative, they are written in simple, non-technical language and should prove of much interest to patient and physician alike.

Surgical Disorders of the Chest: Diagnosis and Treatment.

By J. K. Donaldson, B.S., M.D., F.A.C.S., Major, Medical Corps, Army of the United States; Diplomate, American Board of Surgery; Associate Professor of Surgery and In charge of Thoracic Surgery, University of Arkansas School of Medicine, etc. Pp. 364, with 127 illustrations. Price \$6.50. Philadelphia: Lea and Febiger, 1944.

Our own "J. K." has written this book with the primary purpose of making known to the general practitioner and surgeon the many advances in thoracic surgery within recent years. He indicates that the responsibility for many of the chest diseases continues to fall within the realm of the general surgeon. It is the specialized technical surgical problems of the chest which require the care of the thoracic surgeon. There is no attempt at a detailed chronicle of surgical conditions affecting the chest; conciseness and brevity are sought and attained. The book will prove most valuable to the general practitioner and surgeon with its suggestions for diagnosis and treatment.

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LITTLE ROCK, ARKANSAS, JANUARY, 1946

No. 8

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No. 8

THE LIVER*

LAMAR McMILLIN, M. D.
Little Rock

This is a most important and timely subject because everybody has a liver. Life with a liver may sometimes be hard and the pathway beset with thistles and thorns, trials and tribulations, worries and woes, but life without a liver is, from a scientific standpoint, mathematically and theoretically impractical.

The discussion of the subject, like all Gaul, is divided into three parts: Liver Anatomy, Liver Physiology, and Liver Trouble.

Liver Anatomy

The liver is the largest gland in the body.

This ends the anatomical part.

Liver Physiology

The liver serves mainly (1) to filter from the blood-stream end-products of blood-stream digestion, (2) to store those that are useful, and (3) to excrete those that are not useful.

It will be enlightening to explain what is meant by "blood-stream digestion." In the gastro-intestinal tract carbohydrates, proteins, and fats in food eaten are digested to yield glucose, amino-acids, and fatty acids which in simple forms are the building-stones, respectively, from which carbohydrates, proteins, and fats are built up. These are absorbed by the portal system so that carbohydrate in the blood stream is in the form of glucose, protein is in the form of amino-acid, and fat is in the form of fatty acid. The blood, then, becomes rich in materials absorbed in the portal system; also, it is rich in metabolic products from all over the body, and rich in oxygen. At the relatively high temperature of 98.6 degrees there is chemical reaction between blood-oxygen and blood-stream components so that digestion to simpler or more stable forms occurs. Glucose is digested from its simple six-carbon molecular state and compounded into the more stable, inert, and easily-stored glycogen, or

"liver starch"; oxygen acts on the amino-acid molecule to split off the characteristic amino or ammonia radical, and the residue is digested to a simple form then compounded into glycogen; likewise, the fatty-acid molecule is digested to a simple form, then compounded into glycogen. So the fate of carbohydrates, proteins, and fats in the blood stream is digestion and recombination into glycogen. "Blood-stream digestion" also includes chemical and physical action of the blood on worn-out and susceptible red blood cells. Only by being able to rapidly repair the devastating effect of oxidation can the red blood cell survive digestion. Therefore, cells of low vitality, such as old, worn-out cells or defective forms, succumb to blood-stream digestion and yield soluble, pigmented materials.

The "filtering" action of the liver occurs after blood-stream digestion of the blood components. Glycogen, cell pigments, and other products formed can pass through the walls of the blood capillaries of the liver in a manner comparable to the passage of glucose, amino-acids, and fatty-acids through the intestinal walls after gastro-intestinal digestion.

The "store-house" action of the liver occurs because of the presence of specialized cells in the liver tissue about the blood capillaries. These specialized cells selectively absorb the glycogen and other useful end-products of blood-stream digestion as they filter through. Of these, glycogen is most familiar, but many others, including the vitamins, are absorbed and stored.

The excretory action of the liver occurs when the end-products which cannot be absorbed by these cells pass on, like lymph, and form the bile. This is collected in a network of "drainage-ditch" bile capillaries. These unite, in turn, to form the bile ducts, or excretory system of the liver.

Liver Trouble

Liver trouble is best described in the complaints offered by the souls who suffer.

Biliousness is the complaint of the last patient who comes in on Saturday afternoon. She's a widderwoman from the adjoining county. Her tongue's coated and she belches everything she

* Read before the First Councilor District Medical Society, Jonesboro, October 16, 1945.

eats and she ain't got no appetite and don't nothin' taste good to'er. She's bloated and there's spots before her eyes and her ears ring and her head swims and she feels faintified. She's taken four bottles of chill tonic, three boxes of liver pills, a can of herb tea, and so much sody she foams when she spits. Ain't **nothin'** done her no good.

Where does she hurt? She hurts all over. Her head seems like it'll bust wide open and if she stoops over she can't hardly git back up. She's got a hurting in **this** side and under **that** shoulder and sometimes there's a catch comes in her chest that put nigh cuts her breath off. Then she has a misery in her back that won't quit: she's rubbed it with linament and wore a plaster until the chinges got so bad under it she jest had to take it off. Ain't **nothin'** done her no good.

'Cept salts. Guess she's took a water-bucket full of salts since she's been ailin'. That's the only thing that'll flush her out, and hit don't seem to touch her liver.

Yaller Janders is more a fear than a complaint. The patient often is an old maid, fat and fanciful and fortified with the facts of life. She sits down and puts a 200-lb. strain on her girdle, lights a cigaret, and begins.

"This morning mama said, 'Minnie Bell, your skin's as yellow as a punkin. Better see doctor and git him to fix you up a tonic 'fore you git th' yaller janders.'" Then she wants to know if there's much yaller janders going around and if she orter git some mineral water and drink it and will it hurt to wash her hair (no, she ain't minerstratin'). She don't know much about yaller janders 'cept mama's cousin died with it. They say he had one convulsion right after the other and foamed at the mouth (and he couldn't control his water) and he vomiked everything he ate and his eyes got right glassy and he up't and died.

Gooseliver. A complaint often heard is, "Hey, this ain't gooseliver!" (Beg pardon, this is the wrong track: that's the complaint frequently heard at the hamburger stand.)

The Dead Liver is a frequent complaint among sufferers. Statistics showing the incidence of the disorder are:

Retired railroad conductors	80%
Deacons past 68	90%
Ouachita Indians	99%

(There has been considerable discussion as to why such a high percentage of dead livers occurs among the Ouachita Indians. After exhaus-

tive research, Finklestein and McGinty point out that it may be because 99% of the Ouachita Indians are themselves dead.)

By far the highest incidence of dead livers occurs among superannuated Methodist preachers. Some authorities give it as high as 110%.

Take the case of Brother Isaiah Jenkins. Brother Jenkins says his liver is dead as a mackerel, and everything he eats turns to gas and his bowels won't move 'lessen he takes something. In fact he hasn't had a natural movement since 1927. Brother Jenkins will soon go on to his reward. He has contributed his strength to the Denomination in Pulpit and on the Circuit for 65 years. He now is contributing his last ounce of strength to suffering mankind: he has invented the Jenkins Pill for dead livers. The formula for the pill has not yet been released, but speculation has it that it calls for 4 grains of calomel, 3 grains of aloin, 2 grains of colocynth, and 1 atomic bomb. Brother Jenkins will soon go on to his reward.

The White Liver is a complaint sometimes made of our competitor. In these cases the liver evidently loses its reddish-brown color and acquires some shade of white. Also, this strange bit of pathology seems to be transmitted by the female and especially by females of the canine species. And so it sometimes comes about that we complain, in confidence of course, that our competitor is a white-livered so-and-so.

CORRESPONDENCE

Magnolia, Arkansas
December 1, 1945.

To the Editor:

After three and one-half years in the Army, which includes twenty-seven months in the European theater, they finally gave me the "Bird" to decorate my lapel. Best bird I ever got!

Expect to start work here soon and would appreciate my Journals coming this way. Really enjoyed the Random Thots each month as well as the Journals and my sincere thanks for a job well done.

Sincerely yours,
Charles L. Weber, M. D.

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MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

TACHYCARDIA AND ITS TREATMENT

Part I

PAUL D. WHITE, M. D.
Boston, Mass.

"Introduction: Rapid action of the heart is the most common and obvious cardiac manifestation and therefore, historically, it was the first to be recognized, both by the subject himself and by observers. In fact, palpitation due to tachycardia and arrhythmia was the only symptom ascribed to the heart until some 200 years ago when gradually dyspnea and finally angina pectoris began to be associated with heart disease. The varieties and causes of tachycardia are so numerous that it is necessary first to present a classification.

Classification of Tachycardia: The most common type of tachycardia is that originating in the sinoauricular node. This is called sinoauricular tachycardia, or, for short, sinus tachycardia. Next in frequency is auricular paroxysmal tachycardia, followed by the rapid heart action secondary to fibrillation and flutter of the auricles. A relatively rare form of tachycardia, but much more important, is that arising in the ventricles, which in turn may evolve into ventricular flutter and fibrillation. The rarest paroxysmal tachycardia is that originating in the a-v node.

Sinoauricular Tachycardia: It is largely a matter of opinion at what heart ratio sinoauricular tachycardia may be considered present. It seems reasonable to label rates of over 100 in adults with sinus rhythm as sinoauricular tachycardia, over 120 in children, and over 150 in infants. Although there is a wide range of the normal pulse rate at rest, it is rare to find in perfectly normal persons resting heart rates of 100 or more. One always must suspect some underlying exciting factor for such a rate.

The mechanism of sinus tachycardia is two-fold, consisting of (1) the removal in whole or in part of parasympathetic (vagus) inhibition of the sinoauricular nodal pacemaker, and (2) stimulation of the sinoauricular nodal pacemaker by an increase in sympathetic nerve excitation. Usually both factors operate more or less simultaneously.

The various causes of normal sinoauricular tachycardia are commonly effort, excitement, and the ingestion of food occurring in ordinary daily life in all individuals, healthy and diseased. A rare type of normal sinoauricular tachycardia is that voluntarily induced, associated largely with sympathetic nerve control. It has been shown that the person who can voluntarily accelerate his heart beat increases his blood pressure and dilates his pupils at the same time. Pathological causes of sinoauricular tachycardia include particularly infections, the pulse rate varying with the temperature; in general one degree of fever is attended by a rise of about ten pulse beats per minute. A second cause consists of a variety of non-infectious toxic states. A prominent one of these is the so-called thyrotoxicosis secondary to hyperthyroidism (exophthalmic goiter). Another pathological cause is infarction of some part of the body in a large enough area to give rise to reactions with or without fever. A state of shock may or may not be associated with tachycardia. Sometimes the cause of sinoauricular tachycardia cannot be discovered.

The diagnosis of sinoauricular tachycardia is generally obvious and clearly related to the exciting factor. In rare cases electrocardiographic help is needed. The heart rhythm is usually regular but may wax and wane a little with forced respiration. The rates range from 100 to 200 or somewhat more in children and infants.

The prognosis of sinoauricular tachycardia in itself is good. The prognosis in any given case depends entirely on the underlying cause of the tachycardia, except in those instances where serious heart disease is already present and the myocardial or coronary reserve clearly limited, when the tachycardia in itself may precipitate heart failure.

The treatment of sinoauricular tachycardia is that of the underlying disease or other factor. Much medicine has been wasted in the past in the effort to reduce the heart rate in sinus tachycardia secondary to infection or other pathological cause. Such efforts are almost invariably unavailing. There are rare exceptions when in the presence of heart disease it may be important to avert failure. Digitalis then may help to maintain myocardial tone, and also in slight degree may even reduce the sinus rate. One must, however, be careful to avoid excessive digitalization and to recognize that digitalis itself may be a cause of ectopic tachycardias. Quinidine is ineffective in sinoauricular tachycardia. Seda-

tives such as bromides may help a little when there is a large nervous element responsible.

Auricular paroxysmal Tachycardia: This is the most common of the abnormal or ectopic tachycardias. Its incidence is impossible to determine with any accuracy because many normal persons as well as patients have short paroxysms of tachycardia lasting a few seconds or a few minutes that are not interpreted as such either because they are not sufficiently troublesome to excite concern on the part of the person affected or because there is too little opportunity to obtain a record by electrocardiogram or mechanical pulse tracing owing to the brevity of the paroxysms. Hence statistics from any electrocardiographic laboratory in this respect are grossly inadequate. It seems likely that at least one hundred times as many paroxysms of tachycardia occur through the community at large as can ever be recorded graphically.

The mechanism of auricular paroxysmal tachycardia is not certain. There is a rapid and usually regular sequence of abnormal heart beats originating in the auricle, evidently either from a given point outside the normal pacemaker or as a type of circus wave re-entering auricular muscle which in turn has recovered rapidly from its refractory stage. Apparently, any part of the auricular musculature may be the site of origin of a paroxysm of auricular tachycardia. Electrocardiographically the P waves of the paroxysm are abnormal in shape, poorly marked in Lead I as a rule, often upright in Lead 2 but of not the usual shape, and sometimes inverted. In Lead 3 the P waves may be of varied shape, more closely resembling those in Lead 2 than those in Lead 1, but it must be remembered that normally the P waves in Lead 3 may be diphasic or even inverted. Hence Lead 2 is as a rule the most satisfactory lead for the study of the shape of the P waves in ectopic tachycardias. Lead 4, the routine chest lead, shows the P waves too poorly marked for satisfactory analysis, but a special chest lead may be taken with the exploring electrode over the sternum or just to the right of the sternum in about the 4th space; such a lead may give a clear picture of the auricular action.

Etiology: Auricular paroxysmal tachycardia occurs at all ages, but not so commonly in children as in adults. It is more common in infants than has previously been suspected, however. Dr. John Hubbard of Boston has encountered five cases in a single year in infants under one year of age, where previously only 19 undoubted

cases of paroxysmal auricular tachycardia or flutter in such young babies were on record in the literature.

The exciting factors of auricular paroxysmal tachycardia are legion. It would be impossible to name them all. The most common are effort, excitement, excessive tobacco, thyrotoxicosis, and heart disease itself, especially mitral stenosis. The majority of persons suffering from paroxysmal tachycardia, however, are perfectly normal in health otherwise and with normal hearts. Only a small minority actually have heart disease and yet if we compare the relative incidence in normal persons and in cardiac patients we find a considerably higher incidence in the cardiac patients.

The diagnosis of auricular paroxysmal tachycardia may be made usually with ease, without recourse to the electrocardiograph. The sudden onset and usually sudden offset with an approximate doubling of heart rate, and duration of a few minutes to a few hours mark the attack as of this type. Sometimes the attack does not seem to stop abruptly, due to the fact that although the rate drops considerably at the end of the paroxysm the sinoauricular rate when the heart resumes normal rhythm is elevated by excitement or otherwise, preventing the same sensation of marked change in heart rate that occurred at the onset of the attack; for example at the beginning of a paroxysm of tachycardia the rate may jump from 70 to 160, but at its cessation the rate may drop abruptly from 160 only to 120 when the sinus rhythm is restored, and then gradually the sinus rate recedes to normal. It is helpful in doubtful cases to obtain an electrocardiogram during the attack, especially if it is prolonged. The electrocardiogram is almost invariably diagnostic but there are a few puzzling records in which the electrocardiogram is not adequate (except in a record of the onset) in distinguishing paroxysmal auricular tachycardia from sinus tachycardia or from auricular flutter, and in a few instances also bundle-branch block may complicate auricular paroxysmal tachycardia so that there is an imitation of ventricular paroxysmal tachycardia.

Prognosis. The prognosis of auricular paroxysmal tachycardia is generally excellent as to life, but there are instances of such excessive tachycardia that even in a normal person congestive failure, particularly involving the right ventricle, may ensue with distress and even danger; this is especially true in infants when the heart rate may rise to 300 or more. Another exception to the

rule that paroxysmal tachycardia is unimportant (though it may be disagreeable) is in the presence of serious heart disease. There are three cardiac conditions which are especially prone to be overburdened by tachycardia: (1) mitral stenosis in which case the pulmonary circulation is flooded with blood, and marked dyspnea, and even pulmonary edema and cardiac asthma, may result; (2) any case of strain and enlargement of the left ventricle (commonly the result either of hypertension, aortic valve disease, or myocardial infarction) in which case the tachycardia may induce left ventricular failure and pulmonary edema; and (3) coronary insufficiency which cannot stand the strain of the tachycardia, a status anginosus then resulting, which in itself is very disagreeable and hazardous and stimulates coronary thrombosis.

The prognosis as to recurrence of attacks varies greatly, from but one attack in a long lifetime to paroxysms almost every day, week, or month for many years.

The treatment of auricular paroxysmal tachycardia is generally simple enough, since reassurance, rest at the time of the paroxysms, and the omission of the exciting factors usually suffice. Most paroxysms are so brief that they need no particular therapy. Sometimes a simple change of position will stop the attack, as for example, stooping over or lying down. One very simple and occasionally helpful method of stopping an attack is firm pressure for a few seconds on the carotid sinus, more effectively on the right side of the neck than on the left. Perhaps one in twenty cases gets immediate relief from this maneuver. If, however, the paroxysm is prolonged or very disagreeable, other therapy may be needed, both in treatment and in prevention.

The most commonly used and effective of the drugs in the treatment of an attack is quinidine sulphate in the dose of 3 to 6 grains to be repeated once or twice or even three times at two-hour intervals, and to be used in a prophylactic way in a dosage of 3 grains every few hours for a day or two at a time or longer if needed. In emergency quinidine or quinine may be given parenterally, most readily in the form of quinine dihydrochloride in the dosage of $7\frac{1}{2}$ grains intramuscularly at two-hour intervals if the attack is a severe one and relief must be obtained; it is probably even more effective for ventricular than for auricular paroxysmal tachycardia. Another method of using the cinchona preparations is that proposed by Hepburn and Rykert who advised

for ventricular paroxysmal tachycardia intravenous injection by the drip method of a 10 per cent solution of quinidine sulphate; 50 to 60 grains can be dissolved by vigorous shaking in 500 c.c. of 5 per cent glucose solution or in normal saline. The solution is then filtered, slightly warmed, and given at the rate of 100 to 120 c.c. per hour until normal rhythm results or toxic symptoms (of cinchonism) appear.

Digitalis has not been advised in recent years in the routine treatment of auricular paroxysmal tachycardia although it formerly was used widely. It was found so often ineffective and so often in itself irritating that the pendulum swung too far. It now and then can be distinctly helpful and even better than quinidine or quinine, both in preventing and in treating paroxysms. Digitalization may be fairly rapidly effective, but massive doses are unnecessary; probably three grains or 2 cat units of the leaf every two hours for four or five doses should suffice if the attack lasts that long. Digitalization may be maintained thereafter if the attacks are common and if this drug seems to control them. In babies with paroxysmal tachycardia Dr. Hubbard has found digitalis apparently invaluable and has given up to 2 or 3 grains in divided doses in the course of 24 to 48 hours.

Other preparations are less important. Potassium salts have had a vogue and in rare cases may have some effect but they have usually been disappointing. It is advisable to withhold morphine because of its unnecessarily strong effects in other directions and because of the possibility of habit formation since paroxysms are often repeated.

There are, however, two other vagotonic drugs that are useful in very resistant cases. The first is syrup of ipecac which acts through the production of marked increase in vagal tone. Two to four drachms (8-16 c.c.) of the syrup at a dose to be repeated in a few hours or up to the point of vigorous vomiting have stopped obstinate attacks. Mecholyl (acetyl-betamethylcholine chloride) is the other drug which in the dosage of 20-50 mgms. injected subcutaneously can stop obstinate attacks, but this drug itself has disagreeable side reactions and should be used with caution, atropine ($1/60$ th grain or 1 mgm. of the sulphate) being at hand as an antidote in case of need."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

THE RESPONSIBILITY OF THE PRIVATE PHYSICIAN IN TUBERCULOSIS CONTROL

HERMAN E. HILLEBOE, Medical Director,
Chief, Tuberculosis Control Division,
U. S. Public Health Service

The importance of the general practitioner in the control of tuberculosis among private patients is emphasized by the findings of the Public Health Service in chest X-ray surveys conducted among more than a million industrial workers and by the discovery of a relatively high incidence of the disease among rejectees of the armed forces.

Eight mobile X-ray units, operated by the Tuberculosis Control Division of the Public Health Service in various parts of the country, found that three in every 200 persons examined had X-ray evidence of reinfection tuberculosis—active or inactive. Sixty-five per cent of the lesions were in minimal stage, 30 per cent in moderately advanced stage and five per cent of the lesions in far-advanced stage. Pre-induction examinations by Selective Service alone revealed 150,000 cases with X-ray evidence of tuberculosis.

That the family physician will be called upon to treat a great majority of these persons is borne out by the experience of the U. S. Public Health Service and of the National Tuberculosis Association and its affiliates. In industrial surveys an overwhelming number of workers who could afford private care designated their family physicians—general practitioners—as the doctors to whom the report of the X-ray findings should be made. When these reports are sent out they are accompanied by a request that the physician confirm or disprove the X-ray findings by further clinical studies—such as history and physical examination, laboratory tests and repeated X-ray examinations. He is also asked to examine contacts and to report the new cases of tuberculosis to the local health department.

The average patient has a great deal of confidence in his private physician and expects him to treat tuberculosis just as he would accept other family medical emergencies. Psychological factors make this desirable and practical considerations make it feasible, especially if the physician possesses sufficiently broad understanding of tuberculosis and modern therapeutic methods. Sanatorium care is no longer the only method of tuberculosis control. Many minimal lesions and a limited number of inactive advanced lesions

are amenable to out-patient supervision under strict medical care. This supervision and care can often be rendered by the alert general practitioner who possesses modern knowledge of the diagnosis and treatment of tuberculosis.

The demand for this type of care is expected to increase rapidly as mass radiography units penetrate all sections of the country, uncovering a large number of unsuspected cases of pulmonary tuberculosis that will need medical supervision—before and after sanatorium care.

The personal experience of actually having a chest X-ray will stimulate thousands of individuals to seek medical care, from general practitioners, chest specialists and radiologists, either for tuberculosis or for other chest conditions found on survey examinations.

Through their vast nation-wide educational program, their case-finding and rehabilitation work, which are supported by the sale of Christmas Seals, the National Tuberculosis Association and its affiliated groups will continue to awaken communities to the dangers of the disease. As a result, communities will provide the armamentarium needed for the proper care of the tuberculous patient—hospital beds, clinics, laboratories, rehabilitation service, extensive chest surveys and generous social assistance for the dependents of the tuberculous patient.

The by-product of cooperative plans of public agencies and voluntary associations will provide new aids for the physician in private practice—X-ray, laboratory and consultation services, as well as opportunities for post-graduate training. With these aids he will be better equipped to meet the increasing demands of the tuberculous patient for his services.

As X-ray surveys become an annual routine in many communities, more and more minimal lesions will be found, and conversely, fewer advanced lesions, which now, in most cases, require immediate sanatorium care. The reversal of the old ratio will shorten and simplify therapy for the larger proportion of tuberculous patients, will assure quicker and more complete treatment, and greatly increase the chance of vocational rehabilitation.

A better distribution and greater expansion of clinic, X-ray field services and laboratory facilities will bring modern diagnostic aids within the reach of every general practitioner in urban or rural areas. New, well-equipped sanatoria, more accessible to population centers, and accredited for residency training, will provide convenient consultation service. Such institutions

can be developed to provide post-graduate training of great value to the general practitioner. Research laboratories and demonstrations devoted to the evaluation of old and new therapeutic methods and clinical concepts about tuberculosis have already been established and will be increased in number. From these efforts it is hoped additional aids will be forthcoming for the physician, not only to control but to eradicate the White Plague within a measurable time.

VETERANS ADMINISTRATION PROGRAM

(Summary of a talk given by Major General Paul R. Hawley, Medical Director, Veterans Administration, at the Public Relations Conference of the Council on Medical Service and Public Relations, American Medical Association, October 19-20, 1945.)

I am going to present to you very briefly and very frankly what we have in mind to improve the medical service of the Veterans Administration. It falls into two large problems, one of institutional care and one of outpatient care. We are going to the medical profession for help in improving our institutional care. We are asking for part-time service from doctors in private practice and from members of the faculties of medical schools.

You are mainly interested in the outpatient problem, however. At the moment all women veterans are entitled to outpatient care at whatever expense for any disability, service-connected or non-service-connected. Men veterans are entitled to outpatient care for service-connected disability only. This introduced an administrative problem in determining whether a man applying for outpatient care is entitled to it at government expense. This is not an insurmountable problem, however, and can be solved by the ordinary identification card with coded disabilities.

We don't want to have the veteran treated in any way as a class apart from society. Insofar as possible he should get his medical care just as any other member of society gets it. In the past it has been customary to designate one or two physicians in the community as Veterans Administration physicians and all veterans were forced to go to them. Sometimes these physicians are ones who have plenty of time on their hands, to whom not many people in the community go. We should like to reverse that. We should like to have every physician in each com-

munity designated as a Veterans Administration physician so that each veteran could choose his own physician just like everyone else in the community.

How are we going to work that out? Well, there are some three thousand counties in the United States and the problem may have to be worked out in three thousand different ways. Each county has its own medical problems, and we will make the shoe fit the foot of three thousand different plans.

I want to tell you of our start. The Monmouth County New Jersey Medical Society submitted a plan last May whereby as a county society they would give outpatient care to the veterans. They would establish an outpatient clinic staffed with various specialists one or two nights a week, but would keep it open all the time for emergencies. They would have regular meetings of a rather special staff, and would contact the regional officers of the Veterans Administration and establish the service connection. They would arrange for hospital care and would take the same chance on getting paid as they do on regular patients. This proposal of last May was turned down, but when I found out about it, I telephoned the officers and asked if they were willing to reopen the subject. Fortunately for the Veterans Administration, they were.

There was one part of their proposal I thought was extremely unfair to them, and that was they were going to operate this clinic three months without any expense to the government except the fees paid to the physician. They wanted to establish how much it was going to cost and insisted on taking care of the clerical end at their own expense.

Now as to fees. We can't set a scale of fees for the country any more than we could set a scale of prices for meals to be applicable in every restaurant in the United States. We told Monmouth County, "You put in a scale of fees you think is fair and equitable to your own people, remembering only one thing—there are many times when a doctor charges a fee but does not get it. We don't think we can pay the top prices the doctor gets from his wealthiest patients but we don't want to beat down the fee either." Obviously the scale of fees varies with communities and we are going to have no set scale.

The next thing that frightens many people is the terrific amount of administrative work the doctor has to do. He has interminable forms to fill out. We are going to try to simplify these forms. You must remember these are pension-

able cases and the government has to have some permanent record of what is wrong with a man. Furthermore, anybody who draws pay from the government has to sign something once a month. Our position is that since the Veterans Administration requires all this over and above medical care, the Veterans Administration should furnish the clerical help to do it.

We have only made a start in one county. We hope the news gets around to other counties because it is essentially a local arrangement. We will submit a plan to the thirteen districts when we decentralize. The local regional man will be given authority to deal with local societies.

In conclusion I want to say that in the interest of the veteran, and the interest of the people of the country, we want this care of the veteran to be done by a free and unregimented profession. We want to preserve the structure of medicine in this country. We want the minimum of government supervision of the care of the veteran. We are willing to rely on the honest effort of the profession as a profession and we feel that we are contributing something to the medical profession in giving it an opportunity at no great sacrifice.

**EXCERPT FROM ADDRESS
BY GENERAL OMAR N. BRADLEY,
Administrator of Veterans Affairs,**

*Before the National Convention of the American Legion,
Chicago, Ill., on Tuesday, November 20, 1945.*

I am sure we all agree veterans must have the best medical care obtainable—certainly equal to anything the rich can buy—anywhere, at any price.

To accomplish this, several important changes are necessary. And the first of these involves a change in thinking on the location of veterans hospitals.

We find that many of our hospitals are located far from the medical centers where there would be doctors to help us. Often they are so remotely placed, it is difficult to find the nurses, technicians and attendants to staff them.

Within the medical profession itself, there are not enough doctors to man our growing hospitals with a sufficient full-time staff. Yet, we find that near university medical centers there are highly skilled physicians, anxious to offer their services on a part-time staff. In the same medical centers, we find expert specialists desirous

of helping us give to veterans the specialist care they shall need.

For that reason we feel that as many as possible of our large hospitals be located near these medical centers. At the same time we find these medical centers are usually located in large areas of veteran population. Therefore, hospitals constructed near these centers are not only available to the doctors we need but they are also favorably situated for the veterans they will serve.

With this program, we shall continue to build smaller hospitals in areas where medical centers do not exist, preferably in the larger and convenient cities. These hospitals will continue to provide routine and emergency medical treatment as near as possible the doorstep of the veteran.

Patients requiring specialist care can then be transported to our hospitals nearer the medical centers. This will relieve those smaller hospitals from the necessity of providing specialist care and make the staffing of them easier.

Often communities have misunderstood our reasons for the selection of hospital sites. Frequently they have urged that we take over army hospitals even when we have no doctors to staff them.

The Army has listed almost sixty hospitals to be declared surplus by next summer. They are temporary and semi-permanent structures without fireproof construction. Many of them are clusters of one-story buildings, difficult to operate with limited personnel. Most of them are far removed from the medical centers where the doctors are established. Where emergency needs exist, we may take over several army hospitals in areas where they can be staffed but only as stop-gaps until permanent hospitals are built.

In my opinion these hospitals were necessary expenditures in winning the war. If they cannot properly be used, they must be written off as part of the cost of war—as the shells, guns and tanks which no longer are required.

If you will resist the local requests for hospitals that benefit communities, you can give our veterans a first rate chance to get the care they must have. Our choice is a very simple one. Either we build the hospitals where communities want them and gamble on medical treatment. Or we build the hospitals where veterans need them and where we can give expert care.

Despite the valuable aid we shall get from part-time physicians and visiting staffs, it is nevertheless essential that we staff our hospitals with a greater number of competent full-time

physicians. This becomes particularly important as army officers assigned to us for duty during the war are relieved for discharge from the service.

Under present civil service laws, we cannot hope to fill our needs. Additional inducements must be offered doctors if they are to make careers in the Veterans Administration.

When I became Administrator, I found that Congress had already moved to meet this situation with a bill that would establish a medical corps. At the invitation of the chairman of the World War Veterans Committee, we rewrote the bill, eliminating sections that involved non-medical personnel.

Since then, the bill has again been rewritten—this time by the committee which felt the corps it provided sounded too nearly like a military organization. In other quarters it had been suggested we were militarizing the Administration. That, most assuredly is not true. What we had simply hoped to accomplish was the creation of a medical corps on the pattern of the Public Health Service.

We do not care what the bill is called as long as it provides careers attractive to physicians. Certainly any young doctor, primarily interested in making money, is not coming with us regardless of what we can offer. Even if we wanted him, the government cannot compete with the top rewards of private practice. However, we feel that doctors must be offered incomes substantial enough to make the work agreeable—and opportunity enough to make it attractive. We feel that many doctors will want first, the chance for honest service; and second, sufficient pay to afford reasonable security together with the freedom to practice good modern medicine.

To accomplish this, we believe strongly that the following six points must be satisfactorily covered in medical legislation:

1. Authority must be given to hire competent doctors and pay them according to both their ability and experience.

2. Authority must be given to promote doctors on their ability rather than on the basis of vacant jobs. We must strike a compromise between paying a man on his worth or paying him for the job he holds.

3. More liberal retirement provisions must be given doctors than are now provided by civil service.

4. Authority must be given to use resident physicians in the way they are employed by large and successful civilian hospitals.

5. Authority must be given to send a proportion of our doctors—not to exceed five per cent—to post-graduate courses at hospitals or schools.

6. Increase in pay must be given doctors who qualify as specialists within the requirements of the specialty boards.

If Congress will authorize this program, we feel that competent doctors of the type we need will come to help us in our work. Without these inducements, the task looks hopeless. Already 12,000 doctors have been discharged from the services yet only a handful have indicated their desire to join the Administration.

Six of the nation's top-flight doctors have joined General Hawley in the effort to remake our medical service. They feel, with us, that the enactment of a program similar to the one I have described is essential to success.

OBITUARY

BERT BARRETT BRUCE, age 67 years, died at his home in Alma December 13th after a prolonged illness. He was a graduate of the Kansas City College of Medicine and Surgery in 1919 and had practiced in Crawford County for 22 years. He had served the Crawford County Medical Society as president and as secretary. He was a former coroner of Crawford County. Surviving relatives are his wife, a brother and a sister.

JAMES T. WORD, age 71 years, died December 1st. He had been physician to the Arkansas Confederate Home at Sweet Home for several years. He was formerly in practice at Saint Charles. Surviving relatives are his wife, a son and four daughters.

CORRESPONDENCE

Fayetteville, Arkansas
December 3, 1945.

To the Editor:

I got released November 25th. Promoted to lieutenant-colonel, M. C., November 21st and am now on terminal leave and have resumed direction of the Student Health Service at the University.

Sincerely,
Fount Richardson, M. D.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

OR tuberculous meningitis there is still no adequate therapy. Therefore, before such a diagnosis is made, one must be sure to rule out all diseases for which medical or surgical treatment might be beneficial and in which the prognosis might be favorable.

TUBERCULOUS MENINGITIS—A CASE REPORT

Presentation

A five-year-old boy was admitted to the hospital with headache, listlessness and fever. Three weeks before admission the patient became listless and ten days later developed a fever of 102 degrees F., with nausea followed by frontal headache and persistent vomiting. There were no chills, convulsions or paralysis.

Physical examination upon admission revealed a thin, poorly developed child responding clearly to questions but lapsing into drowsy stupor when undisturbed. The skin was clear and of good color. The ears, throat and fundi were normal. Small cervical lymph nodes were palpable bilaterally. The neck was stiff and painful on flexion. The heart, lungs and abdomen were negative. The Kernig sign was doubtful. The deep tendon reflexes were active and equal. The temperature was 99.4 degrees F., the pulse 100, and the respirations 24. The blood pressure was 100 systolic, 75 diastolic. Blood examination revealed a red-cell count of 5,220,000 with 108 per cent hemoglobin. The white-cell count ranged from 10,200 to 20,650 with 74 per cent neutrophils. The urine was essentially negative. A tuberculin test was negative in a dilution of 1:1000, but positive at 1:100. Blood cultures were negative.

A roentgenogram of the chest revealed a slightly hazy left lung field but no areas of consolidation. There was no enlargement of the hilar nodes.

A lumbar puncture revealed clear colorless fluid under a pressure equivalent to 250 mm. of water. The total white-cell count was 95, with 70 per cent polymorphonuclears. The total pro-

tein was 105 mg. per 100 cc., the gold-sol curve 0012333100, and the Wassermann test negative.

The temperature ranged between 100 degrees and 102 degrees F. Repeated lumbar punctures revealed pressures up to 550 mm., the fluid becoming opalescent and a cell count rising to 350. A sugar determination was 39 mg., and the chloride 567 mg. per 100 cc. Spinal-fluid cultures were negative, as were smears for acid-fast bacilli. A throat culture revealed a Type 22 pneumococcus.

Sulfathiazole therapy was begun on the sixth hospital day. Two days later a neurologic examination revealed a patient difficult to arouse and with dilated pupils, fixed to light. There was no papilledema. The gaze wandered but tended to be directed toward the right. There was a left hemiparesis, with increased tendon reflexes and an extensor plantar response on the paretic side. There was a positive Kernig sign. Death occurred on the tenth hospital day.

Differential Diagnosis

Dr. Allan M. Butler: From the information, no definite diagnosis can be made. The sequence of respiratory infection, fatigue, listlessness, moderate fever, nausea, headache and persistent vomiting is consistent with the dissemination of a primary tuberculous focus and the development of tuberculous meningitis, but does not exclude influenzal meningitis, brain abscess or encephalitis.

The mental state of the child and the stiff neck are consistent with tuberculous meningitis. A positive tuberculin test in a child of five suggests continued exposure at home or the ingestion of unpasteurized milk. Resistance to tuberculosis is relatively good at five years of age and the incidence of tuberculous meningitis is markedly less at this age than at one, two or three years. Un-

fortunately, no information is given concerning the presence or absence of continued exposure.

The description of the roentgenogram of the chest is noncommittal. The films are not available for re-examination, but they were interpreted as essentially negative.

The spinal-fluid sugar of 39 mg. per 100 cc. and the other relatively normal spinal-fluid sugar levels do not rule out tuberculous or other bacterial infection. Without the hyperglycemia incident to the parenteral glucose they might have been markedly diminished. Lack of information about the serum chloride concentration deprives the low spinal-fluid chloride of diagnostic significance. The occurrence of 70 per cent polymorphonuclear cells is rare in tuberculous meningitis but not impossible.

The failure to identify organisms on smear is consistent with encephalitis, brain abscess or tuberculous meningitis. The influenza bacillus may also be missed. The failure to culture organisms is also nonspecific. If the meningitis were due to a Type 22 pneumococcus, the spinal fluid would have been purulent and the organisms seen or recovered on culture.

Sulfathiazole was not administered until the sixth hospital day. Such therapy did not interfere with culture of the spinal fluid. It indicates the diagnosis of tuberculous meningitis was not clearly established. The progress of symptoms is not diagnostic. The repeated lumbar punctures may well explain the absence of papilledema. The possible diagnoses appear to be tuberculous meningitis, with or without miliary tuberculosis, influenzal meningitis, encephalitis and, finally, brain abscess.

I shall hazard the diagnosis of tuberculous meningitis, with or without miliary tuberculosis.

Clinical Diagnosis: Meningitis (? tuberculous).

Dr. Butler's Diagnosis: Tuberculous meningitis. Miliary tuberculosis?

Anatomical Diagnosis: Tuberculous meningitis. Miliary tuberculosis of lung, liver, spleen, kidneys and bone marrow.

Pathological Discussion

Dr. Charles S. Kubik: Autopsy revealed tuberculous meningitis and miliary tuberculosis of the lungs, liver, spleen, kidneys and bone marrow. I should suppose that the listlessness and loss of appetite noted before entry were the symptoms of generalized miliary tuberculosis and that the onset of meningitis coincided with the headache and vomiting.

On examination of the brain a subarachnoid exudate was observed, more pronounced over

the base of the brain and the brain stem than elsewhere. Numerous tubercles of the arachnoid and pia could be seen and were later confirmed by microscopic examination. The lateral and third ventricles were enlarged to about four times normal size. The ependyma was studded with tiny, barely visible tubercles that gave the ependymal surfaces a roughened appearance.

There was also a tubercle, 2 mm. in diameter, of the right cerebral peduncle, which may have accounted for the left hemiparesis. No other tubercles within the substance of the brain were found.

COMMUNIQUE

December 1, 1945.

To the Editor:

I got your letter today which was forwarded to me from Camp Edwards. My correct address is: Capt. L. G. Holt, M. C., Cushing General Hospital, Framingham, Massachusetts.

I had not written this change previously for I have thought I would be transferred somewhere closer to Arkansas, but so far, no luck.

Thanks very much for the letter, also for my 1945 state society membership card.

Sincerely,

L. G. Holt.

KEEP 'EM SAILING

KEEP 'EM MOVING

GET 'EM HOME

BUY

VICTORY BONDS

THE JOURNAL

OF THE
ARKANSAS MEDICAL SOCIETY

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EDITORIAL

THE RETURNING MEDICAL OFFICER

After delays, the military forces' plan for the release of medical officers is under way and nearly one hundred Arkansas physicians are once again civilian doctors. The Journal welcomes each of these back to civilian medicine with an enthusiasm shared by all. We salute each one and wish him all that is good in life and happiness for the years of his practice in Arkansas that lie ahead.

Attention is called to some of the procedures which these returning medical officers should carry out as they reopen offices for the private practice of medicine.

REGISTRATION FEE—The State Medical Board of the Arkansas Medical Society—Two dollars due annually and payable to the Board through Dr. L. J. Kosminsky, Secretary, Texarkana. Registration fees were waived for physicians in military service but inquiry of the Board is suggested to clear records.

NARCOTIC LICENSE—Should be renewed through Collector of Internal Revenue, Federal Building, Little Rock, who will send proper forms of application on request.

UNEMPLOYMENT COMPENSATION—If you have one or more employees in your office, you must pay unemployment insurance. You should reopen your old account or get a new permit from the State Unemployment Compensation Division, 122 East Second Street, Little Rock.

SOCIAL SECURITY TAX—You must pay Social Security tax on your employees. Apply for employer's identification number and forms to the Collector of Internal Revenue, Federal Building, Little Rock.

INCOME TAX WITHHOLDING—Information available from the office of the Collector of Internal Revenue, Federal Building, Little Rock.

MALPRACTICE INSURANCE—Consult your local Aetna agent or write Campbell, Mallory and Colvert, 815 Wallace Building, Little Rock.

COUNTY MEDICAL SOCIETY MEMBERSHIP—All dues of members in service were waived for the period of their military service. See your county society secretary to remain in good standing for 1946.

The Journal offers its service to assist the returning medical officer in any possible way. Please call on us if we can be of help.

EDITORIAL COMMENT

INFORMATION WANTED ABOUT DISCHARGED OFFICERS

The Directory Department and the Bureau of Information of the American Medical Association are very anxious to obtain the names and present addresses of all physicians who have been released from the armed forces and also the date on which their military service terminated.

These names will be listed in The Journal and in the Directory Report Service. Many inquiries are being received daily from physicians who are trying to locate either former colleagues or medical officers whom they met while in military service.

Physicians who have recently been released from the armed forces are urged to send the following information to the Directory Department, American Medical Association, Chicago 10:

1. Full name.
2. Date on which military service terminated.
3. Present address (residence and office).
4. Indicate whether in practice, retired or not in practice.
5. Former permanent address (if different from item 3).

RANDOM THOUGHTS OF THE SECRETARY

November 6th. Tonight the Hundley's visit and while we are privileged to bring Louis up to now on some matters, his information of who and what was at New Britain and on Luzon is far more interesting.

November 10th. After three attempts, we hope that the truth about Pearl Harbor can finally be brought out for all to see.

November 15th. Meeting with the public health committee of the Arkansas Economic Council and later hearing dynamic Paul Hoffman speak on the development of this country, making the case strong as to the part each of us should play. Homeward by Braniff, again pleased with the comfort of travel to Little Rock and return by air, so much so that gone forever are the days of herding an automobile for that 320 miles in any one day.

November 19th. Thoughts while flying to Batesville. It gets rather cold up here in an air-cooled Cub . . . These many rivulets down the sides of hills catching the morning sun rays are a new sight . . . Flying will not be complete until there are more service stations along the airways as we find out by a necessary stop at Clarksville's deserted air field . . . We see Hector, Scottsville and Shirley for the first time . . . The saw mill industry is still booming . . . Twenty miles out of Batesville the gas gauge drops to zero and we think less of having to land in a wet field than we do of having to walk ten miles to a telephone . . . Landing in due course without a single miss of the motor and away to the hotel with the Rotarians . . . The meeting concluded we get our first ride in a 1946 Ford which Ketz owns . . . Away again, this time by the way of Conway, a community which should be proud of what Kenneth Starnes is doing for the private flier and on home in perfect flying weather catching a view of a season-crashing quail hunter just north of Central City . . . Finally astounded to learn that while we told the Batesville Rotarians the reasons there should be no compulsory health insurance, the President was telling Congress the reasons there should be.

November 28th. With the Rotarians today where Goldstein's glowing introduction puts us on our mettle to present the case against compulsory health insurance.

November 30th. We hear the last of "Blaze" and we can add to this list.

December 1st. Marshall Field presents the most delightful Christmas windows we have ever seen with successive views of a dramatized "Twas the Night Before Christmas." This afternoon with the state society editors conferring over advertising and policies affording all the opportunity to speak which is perhaps what was most desired.

December 2nd. With the busy and enthusiastic Council on Medical Service and Public Relations, a group charged with much responsibility and determined to do well by the medical profession. Early to bed to be awakened by Bob Robins who is eager that there be established a Section on General Practice which we can assure him will be done.

December 3rd. Today attending the state president's conference where able and forceful speakers present the viewpoint of organized medicine on political medicine, not in the least impressed with the pleasant words of the chairman of the Social Security Board who promises more than we believe he can deliver under any system of governmental medicine. Visiting and discussing many things

in the evening with Kilbury who has been to the Mayos and about Chicago seeing how they do pathology.

*December 12th. Blair entertains honoring our returning medical officers and there come Seigel, the first man of our acquaintance to own a country club in his own right and Paul McConnell who insists that raising the county society dues "is not worth it" and many another and there is at least one story per capita, it being the gracious thing that the host's story of the pumpkin pie with ingredients by the famed traveling man should be the best of the lot.

December 14th. With Krock and Chamberlain, serving the latter as navigator since he knows not whither he goest north of Fayetteville, driving to Harrison for the Ninth Councilor District meeting, enjoying the splendor of sunlight playing on ice-covered trees and bushes along U. S. 62, thoughts of more ice on the highway having kept Amis, that sheltered naval officer from the tropics, at home today. Renewing friendships in this group whom we last visited in 1944 when meetings were abandoned for the duration and glad that we are on hand to inaugurate more frequent meetings in days to come. And, for the benefit of all present, you spell that fever—tsutsugamushi, and proud are we that we got the first six letters correct in the discussion.

December 16th. This day with the Council where matters are deliberated and homeward in Earle Hunt's 1946 Ford which rides smoothly as goes the conversation and we have time to eat a "Warren" hamburger before the train comes along to carry us the rest of the way. Aboard the train not surprised to find Stanley Gates carrying on his usual week-end vacations to Little Rock as he did during his days at Camp Chaffee with this difference that now he is "v.o.c.o." itself.

December 22nd. With the coming Christmas season we recall the years of war, of heartache and sorrow, of sickness and hunger, which have tortured this whole world and give thanks that peace and good will promise to return to men everywhere.

December 25th. The merriest of Christmases since 1940 yet victory has not brought assurance that all children everywhere will be happy, warm and carefree.

★ B U Y ★
**VICTORY
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PROCEEDINGS OF SOCIETIES

Bradley County Medical Society has elected the following officers: President, Rufus Martin; vice-president, Merl T. Crow; secretary-treasurer, W. J. Hunt; delegate, W. B. Reasons, and alternate, Merl T. Crow.

The Ninth Councilor District Medical Society met in joint luncheon session with the Auxiliary December 14th. Speakers on the afternoon program were: Chas. T. Chamberlain, Fort Smith, "The Heart and Aviation," and Fred H. Krock, Fort Smith, "Medical Service in the South Pacific." M. E. Rust, Secretary.

Garland County Medical Society has elected the following officers: President, E. Driver Rowland; vice-president, Frank M. Burton; secretary-treasurer, W. E. Gray; delegates, J. M. Proctor, Foster Jarrell and E. M. Smith, and alternates, Frank M. Burton, Jett O. Scott and G. A. Herbert.

Nevada County Medical Society has elected the following officers: President, W. B. H. Pool, Bodcaw; vice-president, B. H. Rouse, Prescott, and secretary-treasurer, L. J. Harrell.

Howard-Pike County Medical Society has elected the following officers: President, E. V. Dildy, Nashville; vice-president, J. G. Waldrop, Nashville; secretary-treasurer, M. D. Duncan, Murfreesboro; delegate, W. H. Toland, Nashville, and alternate, E. V. Dildy.

The Sebastian County Medical Society was addressed December 11th by Fred H. Krock on "Medical Service in the South Pacific." Officers elected are: President, Ralph E. Crigler; vice-president, W. F. Adams; secretary, D. W. Goldstein; treasurer, W. R. Brooksher, and member, Board of Censors, Fred H. Krock.

D. W. Goldstein, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro December 6th for the following program: "Status of Malaria in the Returning Soldier," Otis Warr, Memphis; "Malaria Control," Mr. Joe E. Thomas, Monette, and "Serious Kidney Lesions Ac-

companied by Slight Urinary Changes," L. G. Duncan, Memphis. The following officers were elected: President, Joe Verser, Harrisburg; vice-president, E. R. Barrett, Jonesboro; secretary-treasurer, J. H. McCurry, Cash, and censor, C. H. Reagan, Marked Tree.

J. G. McCurry, Secretary.

Little River County Medical Society submitted membership assessments for its entire membership on November 20th, becoming the first to remit the 1946 assessments. Officers are: President, Norman Peacock, Jr., Ashdown; vice-president, C. A. Harding, Ashdown; secretary-treasurer, E. W. Yates; delegate, J. G. Shelton, Jr., Ashdown, and alternate, E. W. Yates, Foreman.

Pulaski County Medical Society has elected the following officers: President, Hoyt R. Allen; vice-president, Geo. D. Thompson; treasurer, R. M. Blakely, and secretary, E. J. Easley.

The Washington County Medical Society was addressed December 4th by B. M. Kaufman on "Celiac Disease." Officers elected are: President, Friedman Sisco, Springdale; vice-president, Fount Richardson, Fayetteville; secretary-treasurer, Ruth Ellis Lesh, Fayetteville; delegate, Loyce Hathcock, and alternate, Friedman Sisco.

Ruth Ellis Lesh, Secretary.

The Ouachita County Medical Society met in regular monthly session December 6th at the Camden Hospital. The doctors enjoyed a turkey dinner given by the hospital. A symposium on "Cancer of the Breast" was given by Carl Rosenbaum and M. J. Kilbury of Little Rock. The following new officers were elected: President, B. V. Powell; vice-president, John P. McAlister; secretary-treasurer, R. B. Robins; delegate, R. C. Kennerly, and alternate, J. P. Clemens.

R. B. Robins, Secretary.

The Pope-Yell County Medical Society met at their regular November meeting with J. A. Henry discussing malignancy of the lung. Kent Grace and Brooks Teeter were welcomed back to the Society after being in the armed services.

Ellis Gardner, Secretary.

The Arkansas State Cancer Commission, in cooperation with the Department of Surgery, University of Arkansas School of Medicine, presented "Cancer Day" at the medical school November 23rd with the following program: "Oral Tumors," Louis Jorstad, Saint Louis; "Cancer of the Oral Cavity from the Viewpoint of the Dentist," W. N. Burford, Columbia, Missouri; "Carcinoma of the Cervix," Harold Swamberg, Quincy, Illinois, and "Malignancies of the Skin," B. A. Rhinehart, Little Rock. Carl A. Rosenbaum, Little Rock, presided over the session.

The Faulkner County Medical Society has elected the following officers: President, Edwin L. Dunaway; vice-president, Robert L. Taylor; secretary-treasurer, I. N. McCollum, and delegate, L. S. Dunaway, Jr.

Searcy County Medical Society has elected the following officers: President, E. G. Fendley, Leslie; vice-president, W. T. Moore, Marshall; secretary-treasurer, J. O. Leslie, Marshall, and delegate, H. J. Hall, Clinton.

Little River County Medical Society has elected the following officers: President, Norman W. Peacock, Jr.; vice-president, C. A. Harding; secretary-treasurer, E. W. Yates; delegate, J. G. Shelton, Jr., and alternate, E. W. Yates.

The Southeastern Surgical Congress will hold its next Assembly at Memphis, March 11, 12, 13, 1946, at the Peabody Hotel.

The following is a partial list of those who will take part on the program:

Dr. Conrad G. Collins, New Orleans.
Dr. Merrill N. Foote, Brooklyn.
Dr. Clarence E. Gardner, Durham.
Dr. James E. Hemphill, Charlotte.
Dr. Robert Hingson, Jr., Staten Island.
Dr. Arnold Jackson, Madison, Wis.
Dr. Roy R. Kracke, Birmingham.
Dr. Karl A. Meyer, Chicago.
Dr. J. O. Morgan, Gadsden, Ala.
Dr. Curtice Rosser, Dallas.
Dr. Harold E. Simon, Birmingham.
Dr. G. L. Simpson, Greenville, Ky.
Dr. Horace G. Smithy, Charleston, S. C.

The medical profession is invited to attend the Assembly. For information write Dr. B. T. Beasley, Secretary-Manager, Atlanta 3, Ga.

PERSONALS AND NEWS ITEMS

Dr. and Mrs. W. C. Porter, Ozark, celebrated their fifty-seventh wedding anniversary December 16th.

Among those registered for the Oklahoma City Clinical Society meeting were N. R. Hosey, Marvell; Jim McKenzie, Hope; W. L. Shippey, Fort Smith, and W. M. Woods, Huntington.

Rogers Hederick has been released from military service and has returned to practice at Booneville.

Capt. W. Myers Smith, Little Rock, is now assigned to the American Sanitary Mission, Port Au Prince, Haiti.

Karlton H. Kemp has been released from military service and has returned to practice at Texarkana.

Henry G. Hollenberg has been released from military service and has returned to practice with offices in the Boyle Building, Little Rock.

J. J. Monfort has been released from military service and has returned to practice at Batesville.

Hunter A. Causey has been released from military service and has returned to practice at Pine Bluff.

Capt. Ralph E. Weddington, Batesville, is now hospitalized at the Regional Hospital, Camp McClellan, Alabama.

R. D. Dickins has moved from Monticello to Pine Bluff.

James M. Kolb, Clarksville, has been released from military service and has returned to practice.

"Lumbar Sympathetic Block in a Premature Infant" by Robert D. Dickins, Monticello, and Julius B. Richmond, appeared in the December 30, 1944, issue of The Journal of the American Medical Association.

A. A. Blair, Fort Smith, has been elected president of the Sebastian County Tuberculosis Association.

J. O. Pierce has been released from military service and has returned to practice at Marked Tree.

W. L. Bunch, Little Rock, is now stationed with the Caddo-Shreveport Health Unit at Alexandria, Louisiana.

BORN—To Dr. and Mrs. A. S. J. Clarke, Fort Smith, on November 20th, a son, John Robert.

E. P. Griffin, Jr., Atkins, has been released from military service.

Henry V. Kirby has been released from military service and has returned to practice at Harrison.

Doris A. Baldridge, formerly of Conway, is now serving as full-time clinician with the Saint Louis City Health Department.

O. B. McCoy has been released from military service and has returned to practice at Harrison.

J. B. Holder has been released from military service and has returned to practice at Monticello.

Charles H. Lutterloh has been released from military service and has returned to practice at 805 Medical Arts Building, Hot Springs National Park.

"Mesenteric Thrombosis Complicated by Dermoid Cyst," by Ruth Ellis Lesh, Fayetteville, appeared in the American Journal of Obstetrics and Gynecology, October 1945.

P. R. Anderson has been released from military service and has returned to practice with Dibrell, Melson and Hundling at 909 Main Street, Little Rock.

G. L. Kimball has been released from military service and has returned to practice at DeQueen.

Fred H. Krock recently addressed the Fort Smith Rotary Club on naval medicine in the South Pacific.

Lt. Col. R. H. Johnston, Clarksville, is now stationed at the Erie Proving Ground, Lacarne, Ohio.

Thos. P. Foltz, Fort Smith, now stationed at Naval Hospital, Key West, Florida, has been promoted to commander.

J. H. Pinson, Jr., has been released from military service and is now associated with Drs. Wharton in El Dorado.

Capt. Charles C. Reed, Jr., Little Rock, is now stationed at Camp Robinson, Arkansas.

John L. Aday has been released from military service and has returned to practice with offices in the Donaghey Building, Little Rock.

Charles L. Weber has been released from military service and has returned to practice at Magnolia.

Fount Richardson has been released from military service and has returned to practice at Fayetteville.

Capt. Leslie G. Holt, Little Rock, is now stationed at Cushing General Hospital, Framingham, Massachusetts.

M. J. Kilbury, Little Rock, visited the Mayo Clinic and Chicago hospitals during December.

O. G. Hirst has been released from military service and has returned to practice at Prescott.

Harvey D. Shipp has been released from military service and has returned to practice at Little Rock.

Frank C. Maguire, Jr., has been released from military service and will be associated in practice with his father at Augusta.

James W. Amis and Fred H. Krock, Fort Smith, on terminal leave, have been promoted to captain, naval medical corps reserve.

Pearl Waddell, Fort Smith, took special work in pediatrics at Tulane University during December.

J. A. King, formerly of Elaine, has been released from military service and has opened offices for practice at El Paso, Texas.

Theo Freedman, Little Rock, has received the 33rd degree, Scottish Rite Masons.

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SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

THE COUNCIL URGES SUPPORT OF JOURNAL ADVERTISERS

J. E. Beasley has been released from military service and has returned to practice at Blytheville.

R. E. McLochlin has been released from military service and has returned to practice at Little Rock, with offices at 423 Donaghey Building.

H. E. Mobley, Morrilton, has been elected to fellowship in the International College of Surgeons.

Dr. and Mrs. Daniel McCall, Lawson, celebrated their 50th wedding anniversary December 9th.

H. A. Stroud, Jonesboro, has been elected president of the Craighead County Tuberculosis Association.

R. H. Whitehead, Jr., has been released from military service and is now associated in practice with his father at DeWitt.

L. J. Harrell has moved from Bauxite to Prescott.

Lt. Jack Agar, Little Rock, is now stationed at the Naval Hospital, Newport, Rhode Island.

W. A. Regnier has been released from military service and has resumed practice at Crossett.

Jones W. Lamb, formerly of Paragould, has been released from military service and is now associated with T. A. Peterson in practice at Wynne.

J. S. Miller has moved from Wynne to Hardy.

Chas. Wallis, Little Rock, recently took special work in pediatrics at Tulane University.

Ruth H. Junkin has moved from Little Rock to Batesville.

John O. Gurney has moved from Pine Bluff to Oak Ridge, Tennessee.

F. W. Carruthers, Little Rock, and Fred H. Krock, Fort Smith, attended the recent sessions of the Southern Surgical Association at Hot Springs, Virginia.

Monroe D. McClain has been released from military service and has returned to practice with offices at 1241 Donaghey Building, Little Rock.

S. S. Kirkland has been released from military service and is spending terminal leave at Van Buren.

J. M. Walls has been released from military service and has returned to practice at Blytheville.

R. B. Robins recently addressed the Camden Rotary Club on "Our Resources."

Edwin V. Dildy has moved from Mineral Springs to Nashville.

Thomas P. Foltz, Fort Smith, has been released from military service and has become an associate of Dr. Arnold Stevens, Beverly Hills, California.

J. G. Martindale has been released from military service and has returned to practice at Hope.

John N. Roberts has been released from military service and has returned to practice with Grady W. Reagan at 1203 Donaghey Building, Little Rock.

Byron L. Bennett has been released from military service and is at his home, 2620 State Street, Little Rock.

Dale Alford, Little Rock, who was recently released from military duty, has accepted a residency in ophthalmology at the Illinois Eye and Ear Infirmary, Chicago.

Ralph E. Crigler has been re-elected president of the Fort Smith Boys Club.

Vann C. Binns has been released from military service and has returned to practice at Monticello.

Byron Z. Binns has been released from military service and has located at Eudora.

The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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OF THE ARKANSAS MEDICAL SOCIETY

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LITTLE ROCK, ARKANSAS, FEBRUARY, 1946

No. 9

"THE RETURNING INJURED SOLDIER"

HOLLIS H. BUCKELEW, M.D.*

Rogers, Arkansas

Ladies and Gentlemen:

The problem of the returning battle casualty taxes every agency of our country to the utmost. It begins at the time of injury or disease and ends only when the soldier has been returned to duty or to a position of security in civilian life in the best mental and physical condition. To accomplish this feat the entire resources of this nation must be applied. Some agency has to save the soldier's life by emergency care. Someone must return him to this country systematically. Someone must make him want to live and someone has to perform restorative medical and surgical treatment. Some agency has to prepare him mentally and physically to return to duty or to the social structure from which he came in civilian life. And when he is returned to civilian life, some agency must aid him in taking his place in society, giving him a job and administering the provisions of state and federal legislation in his behalf. Even with its vast facilities the army does not propose to perform all of the tasks which I have outlined. It does, however, carry on all the functions up to the discharge of the patient to civilian status. It is of the job of preparing him mentally and physically to return to duty, either as a soldier or a civilian, that I shall speak. Taking a line from Shakespeare, let me say that I do believe that there is a "tide in the affairs of men, which taken at the flood leads on to fortune; omitted, all the voyage of their life is bound in shallows and miseries." The tide which we desire to take at flood comes at a time when the soldier is stricken at the peak of mental and physical efficiency and is brought back to this country for definitive medical care.

What, then, is the problem as the battle cas-

ualty? The average patient has these characteristics: 1. He is uncertain about his physical condition. 2. He is sick of military discipline. 3. He is discouraged about his future. 4. He wants to go home.

The bulk of the patients at general hospitals have one of four general types of injury. They are—1. Nerve injuries. 2. Bone injuries. 3. Injuries requiring plastic surgery. 4. Mental abnormalities. The average patient is many weeks removed from the firing line and the average one of them has been evacuated through seven hospitals in the magnificent evacuation system of the greatest medical organization in the history of the world, the Medical Department of the United States Army. The glorious record of life-saving to which the Surgeon-General referred this afternoon, while desirable in every respect, adds considerably to the number of severe injuries returning to general hospitals. In other wars and in another day, many soldiers who now come to general hospitals for treatment would have been buried on the field of battle.

In summarizing our plan of procedure in the handling of this problem we take our cue from the thing that is probably uppermost in the soldier's mind. So as soon as the patient's condition has been ascertained by our doctors he is given a furlough, if his condition is such that it is safe for him to do. After his visit home, he returns, and the long-time process of restoring him to health is begun. I shall not discuss the medical and surgical aspects of treatment but will confine my remarks to the vast process of reconditioning as it is practiced at general hospitals. Admirably equipped and staffed by personnel especially trained in these efforts, the Reconditioning Services set out with the mission of seeing to it that the patient spends his time pleasantly, profitably and intelligently while he is in the hospital. To accomplish this, every effort is made to put him at ease mentally; his personal problems, be they financial, moral or legal, become our concern, and an honest attempt is made to solve them for him.

Such musculature as he has, is retained by

* Formerly Major, Medical Corps, Army of the United States.

calisthenics even while the patient is in bed. As he becomes able to walk he is placed in a system of graded calisthenics given in a gymnasium equipped with apparatus and personnel providing exercises personalized to his particular needs.

Just as a muscle atrophies from dis-use so does the mental process. Our desire is to keep the patient busy mentally, so that at the end of his convalescence his mind will be as active as it was before. To this end the trained personnel of the educational department, through its vast store of films and texts approaches the problem by first offering light reading material and visual aides, and, as the patient progresses, fans the spark of interest to the point where an accredited course of study may be followed. A significant number of our bed patients are now engaged in doing accredited high school or college work in the correspondence school of the army known as the USAFI. One hour daily is required of each ambulatory patient in educational pursuits.

The patient is invited to make use of the opportunities offered under the Arts and Skills project of the Red Cross. In this outstanding effort, a large group of volunteer, highly-skilled Arts and Craftsmen take raw materials to his bedside, instruct him, encourage him and assist him in modeling, pottery, fly-tying, painting, rug-hooking, and other fine arts. Complete professional equipment is available and he has the opportunity of spending many happy hours planning his future home or business with the help of volunteer skilled instructors.

The intra-hospital communication system provides a medium for the dispensing of news and music and educational material. A music department sees to it that the patient has opportunity to participate in the playing and singing of his choice of music. He may receive instruction in the instrument of his choice and he is provided places to practice privately. The Occupational Therapy workshop provides boundless opportunities in the development of muscles or the mobilization of a joint while the individual is performing a pleasant task with hand or foot tools.

The Red Cross with its Social and Recreational service, the Special Service division with its orchestra, shows and liaison with entertainment agencies in neighboring cities complete the armamentarium with which we attempt to unwind the spring-like personality of the fighting man.

The philosophy of our entire organization is that the hospital exists solely for the patient.

At no time is he allowed to feel that because he has been hurt in the service of his country he will be given special consideration other than that provided by law. If he can go back to duty, he is placed in a job commensurate with his ability. If on the other hand his injury is so severe that he must lay aside his gun and return to civilian life, much thought and care is given to preparing him to reassume his role as a civilian. He is carefully informed of the provisions of the state and federal government regarding him. The Separation-Classification officer is in a strategic position to offer sound vocational guidance to the home-going soldier because he has before him at the same time a record of the patient's civilian life, his army experience and his hospital record. He is, therefore, able to advise the patient soundly in his civilian pursuits. The Veterans' Administration and veterans' organizations, United States Employment Service, Civil Service and other agencies are housed within the hospital ready and able to advise each patient in matters pertaining to their special field. Retaining and re-education is not a prerogative of the army. The Veterans' Administration is responsible for this phase of activity. It is provided for by law and its field is not encroached upon by the army. We are not concerned with rehabilitation, however, there is no clear line of demarkation in the process by which a patient is re-established in his community and, therefore, we naturally find ourselves laying the groundwork in pre-vocational guidance and exploratory work in connection with vocational fields.

Upon the community must rest the responsibility of restoring the individual to the society from which he came. It must share the responsibility of making him aware of the value of its institutions, the virtue of good behavior, and the honor and privilege of living the American way of life.

Industry has held out a magnificent challenge to the Medical Department. Industry has offered jobs in line with the patient's ability. The marvelous planning of such men as Mr. Armstrong of Westinghouse bears testimony to the elaborate lengths to which industry is going in its desire to salvage manpower from the battle-front.

It is not enough, however, to say that "a job for every veteran" is the answer to the problem of the returning soldier. There has to be a re-evaluation of the soldier's skills. A trait of character or a skill or knowledge which was considered very valuable in the army might prove worthless in industry. Someone, and we feel this responsi-

bility, must aid the soldier in this re-evaluation and must make him WANT to succeed in a job.

Now, how well are we doing? I outlined in the beginning the characteristics of a soldier upon admission to our hospital. Here is what they look like when they come to you. Of the patients who have been admitted to Cushing General Hospital 9% of them have been discharged with mental abnormalities, 4% have been discharged because of fractures, 2% have been discharged with nerve injuries and 1% have had gunshot wounds involving a combination of injuries. 5% have gone out of the army because of heart conditions, tuberculosis, ulcers, epilepsy, arthritis, asthma, diabetes and such medical diseases. 3% have been discharged for diseases and injuries that run the gamut of human ills and accidents. Thus, 24% of the patients coming to Cushing have been sent to civilian life. The other 76% either recover and go back to duty or they are transferred to another hospital for treatment. Those who go to duty are admirably cared for in an advanced program given by our sister institution, the Lovell Convalescent and Reconditioning Center.

We know that the patient has been made comfortable and happy while he is in the hospital. His laughter and spirit of ribaldry manifest this. His behavior is good and he is no longer discouraged. He has hope in what the future holds for him. He has learned that the milk of human kindness does flow in the veins of America. He has had opportunity to explore latent talents and abilities. He has had time to develop his sphere of interests. In this connection it is noteworthy that eighty per cent of them have expressed their intention to do work other than that which they were doing upon their entrance into the army. This, I think, is accounted for by the fact that a majority had not begun a definitive career at the time of their induction. Many of them will be required to change their vocation because of injuries. Some have seen another part of the country that appeals to them more than did the area from which they came.

The veteran who comes to you is informed about his rights, he knows why he has fought, he understands what he has fought for, and we believe he is determined to take his place as a citizen. Our follow-up studies have reflected this attitude. He is taught that he is a part of a competitive society in which each must carve his niche by virtue of his own efforts. He is reminded that nature's old law of the "survival

of the fittest" cannot be warded off for any significant period of time, but that the opportunities of the American Free Enterprise system are inexhaustable. Industry and professions want him.

The spirit of charity must enter into the re-establishment of these men in industry, but it must be a charity in the broadest meaning of the word. It must be given in recognition of the sacrifice that the soldier has made, and not in the spirit of solving a community problem. It must be given in the spirit of making the best of a holocaust that has approached the shattering of civilization, and **not** as John O'Reilly wrote, "Charity scrimped and iced and all in the name of a cautious, statistical christ." Cheap maudlinism must give way to sound planning. The doers must replace the talkers.

With the help of Almighty God and a nation whose hearts are filled with gratitude, and an industrial system that does not know the meaning of the word "can't," we shall go forward toward the end that the shame for which this nation has suffered in other postwar periods, shall not be repeated.

To accomplish this end, the people must make good in peace, the commitments they made when the bombs were falling.

They must remember that a war does not end with the cessation of gunfire.

CORRESPONDENCE

January 5, 1946.

To the Editor:

Thank you for your note of welcome back to the "family." I assure you it is a pleasure to be back among old acquaintances. It is my hope that I shall be able to make some real contribution to the health program of Arkansas. In so doing, I shall, as in the past, try to continue my participation in affairs of the organized profession.

As a matter of personal interest, I would like to say that I was finally separated from service as a "chicken" Colonel and I am at present on terminal leave.

With best wishes to you and yours for the New Year, I am

Sincerely yours,

A. M. Washburn, M. D., Director
Division of Communicable Disease Control.

VENEREAL DISEASE

ARKANSAS STATE BOARD OF HEALTH

A steady stream of men and women who have seen service in the military forces is returning to civilian life. For a number of them, venereal disease will continue as a personal health problem after they are separated from the Armed Forces. What can be done to help such veterans?

We must avoid the pitfalls of neglect which occurred following the last war which will cause later serious disability among these veterans. There are four important component parts to be considered in dealing with the veteran's venereal disease problem. These are as follows:

1. Action being taken by the armed forces at the time of the veteran's discharge.
2. Action being taken by civilian public health agencies.
3. Action to be taken by the civilian physician who will care for the veteran.
4. Action to be taken by the veteran himself.

We feel that it will be useful to physicians to learn something of the steps being taken by each, because it is almost certain that in the future months many physicians in Arkansas will meet in their offices, veterans who need further advice regarding venereal disease.

Action by the Armed Forces

Soldiers are "screened" for venereal disease as they are demobilized. Having detected those veterans with suspicion of venereal disease, the appropriate health agencies are notified. A United States Public Health Service representative is available at all larger separation centers to recommend immediate individual study in a nearby Rapid Treatment Center. The steps are as follows:

1. A serological test for syphilis is taken on every member of the armed forces in discharge medical examinations. In those instances where discharge serological tests are positive or doubtful, the veteran is informed of this condition and is urged to go to the nearest rapid treatment center for appraisal. If time does not permit this, the veteran is followed by his civilian health agency. A venereal disease "Separation Report" is prepared in quadruplicate for purposes of informing all responsible agencies of each positive or doubtful test.

2. At the time of the discharge, all medical documents are searched for any written record of a venereal infection while in service. This information is recorded on the army "Separation Form." A copy of the Army Separation Form is forwarded to the veteran's State Health Department, giving name, civilian address, and syphilis medical history.
3. For the protection of civilian public health, a veteran discovered to have any open lesions of venereal disease, is not released until he has received treatment to remove the danger of infectiousness. This, properly carried out, represents an important contribution to the protection of the general public health.

Action by the Civilian Health Agencies

In the main, the following are the types of cases which require civilian follow-up:

- A. All known syphilis infections:
 1. Cases which have been adequately treated except that they may require further observation after date of discharge.
 2. Cases which have not completed treatment at the date of discharge and must complete treatment in civilian life.
- B. All suspicious syphilis infections (no history of syphilis):
 1. All veterans reported with positive or doubtful discharge serological tests.

The State Board of Health forwards the "Separation Report" to the Local Health Agency of the veteran's prospective residence. Public Health Nurses and Investigators assigned to local health units will inform the veteran of the need for **seeing his physician**, and in turn will supply the physician of his choice with the confidential information contained in the Separation Report. If there is no active Local Health Unit in the veteran's county of residence he will be notified from the State health office by mail to report to his physician.

In addition, a copy of this report is filed in the State Board of Health office, to be available to any physician whom the veteran visits for care. Therefore, it will be of value for the physician to communicate with his State Board of Health at once, should a veteran consult him without this information. The State Board may have valuable clinical data which will help in further care of the patient.

Action by the Physician

Most of the veterans who **have been treated** for syphilis have been given a standard type

of treatment. A number of definite plans have been followed which are recognized as sound methods. In addition all veterans have been continuously examined while under treatment. The greater share will have had regular serologic tests and a cerebrospinal fluid examination before discharge. There will be a "Separation Report" of this information and the physician will be thus able to come to a decision as to future follow-up.

Every veteran who had syphilis in service, regardless of status of treatment at date of discharge, should be re-established under care of a physician in civilian life and should remain under observation for a lengthy period of time, probably not less than five years. The veteran must not neglect this.

Syphilis is a disease requiring long observation. Where a veteran is considered to have completed an adequate amount of treatment while in service, he has been advised to return to a physician and have serologic tests regularly. Relapses are most likely to occur during the first twelve months after treatment was completed. At the end of five years, the veteran should be thoroughly examined, including cardiovascular examination, and cerebrospinal fluid examination. No patient with a history of syphilis should be discharged as **probably cured** before this period of observation or without a spinal tap being done.

Veterans with a positive or doubtful serologic test for syphilis at the time of discharge with "No history of syphilis," have an important sign which must be considered seriously. The test may represent a masked syphilis infection through the use of penicillin in the treatment of an acute gonorrhea, during military service. While a single positive serologic test for syphilis, in the absence of corroborative symptoms and signs is **not** diagnostic of syphilis, nevertheless such cases cannot be classified as **non-syphilitic** until several negative serologic tests have disproved the previous reports. "False" positives should be followed for a period sufficiently long to establish the significance of the positive or doubtful serologic test first discovered.

For the physician treating the veteran, assistance is available. First, assistance from his state health department—free anti-syphilitic drugs, consultative service, laboratory service, clinic service, and most important, there are Rapid Treatment Centers in this area for completing treatment in the shortest possible time. (Ten days.) Addresses and information concerning these centers can be obtained from your State Health Officer.

Action by the Veteran

A word should be said about venereal disease among veterans. The service man has had many influences at work on his way of living which were favorable to the spread of venereal disease. Had he remained at home he probably would have escaped venereal disease. The veteran will need **tactful, confidential and sympathetic** handling. Venereal disease continues to carry a stigma which can harm home relationship, working status and position in the community, if its presence becomes known by non-professional persons. No one deserves such needless harm less than the veteran. In not all instances will it be clear to the veteran himself that he needs further protection. Where he considers himself cured, he may not indeed be cured. He may not understand the importance of continued **observation** as a protection for his future health. He will certainly neglect his future care unless he receives **sound** medical advice.

We hope that the above information will be helpful to you, and that through a close liaison between the Armed Forces, State Board of Health, and physicians in this area, the veteran will not become this time the victim of neglected syphilis—a casualty with aortitis, tabes or paresis—as was far too frequent in the decades following the last war.

The dangers of toxic reactions to the kidneys and crystal formation in the urine, frequently seen when sulfathiazole or sulfadiazine is administered, has been greatly reduced by the application of a recently discovered phenomenon that the total toxic and crystallizing properties of a combination of two sulfonamides would be no greater than the toxic and crystallizing properties of one of them in the combination.

Proven by clinical trial, this means that the incidence of kidney toxicity and urine crystal formation with a combination of sulfathiazole and sulfadiazine would be very much less than if an equivalent amount of sulfathiazole or sulfadiazine were administered singularly. At the same time, the clinical therapeutic results in all conditions amenable to sulfadiazine or sulfathiazole therapy is often higher with the combination.

Combinations of sulfathiazole and sulfadiazine, known as Combisul-TD are now produced by the Schering Corporation of Bloomfield, N. J. For the safer treatment of meningitis, Combisul-DM, a combination of sulfadiazine and sulfamerazine is likewise available.

THE LATEST TREATMENT OF MALARIA*

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I. DEFINITION OF MALARIA FEVER—

Malaria fever is an infectious disease characterized by paroxysms of intermittent fever which may occur daily (quotidian), every other day (tertian), or every third day (quartan), or be continuous with marked remissions. Less commonly, a pernicious, rapidly fatal form, or a chronic type with anemia and enlarged spleen, are observed.

II. TYPES OF MALARIA AND ITS VECTOR—

The vector—Malaria is carried solely in this part of the country by the anopheles mosquito and possibly by others in warm climates.

Malaria is caused by certain species of **Protozoa**, (division); class-Sporozoa; order-Hemosporidia, and caused by the parasites:

Plasmodium Vivax (tertian parasite).

Plasmodium Malariae (quartan parasite).

Plasmodium Falciparum (estivo-autumnal).

There are two or more subdivisions of the Tropical malaria causing four forms: 1. the comotosed (cerebral), 2. the Algid (gastro-intestinal), 3. the hemorrhagic (kidney), 4. malarial cachexia (general debility).

III. THE LIFE CYCLE OF THE MALARIA PARASITE—

To best understand how the drugs act in the treatment of malaria one must know the life cycle of the malaria parasite. The plasmodium is introduced into the body of man by the bite of the **anopheles** mosquito. It exists in two forms:

1. The **PARASITIC** form in man, who is the intermediary host.
2. The **EXTRACORPORAL FORM** which lives and develops in the mosquito, which is its definite host.

In man the development of the parasite is known as the **Asexual cycle**, while in the mosquito the development of the parasite is known as the **Sexual cycle**.

1. The Parasite in Man—(Asexual cycle).

The **MEROZOITE** is the youngest form of the parasite in man. It is made up of a mass of protoplasm with a nucleus rich in chromatin. The parasites are first attached to the red blood cells and later are situated in them and look like "signet rings" within the blood cells. After **twelve**

to **fifteen hours** the parasite has increased in size and small brownish granules of **pigment** are seen in the parasite.

As the growth process progresses more and more pigment is produced and the **nucleus** first becomes **polymorphous** and later divides into several parts. This takes from **thirty to seventy-two hours**, and now the parasites have attained the size almost equal to the red blood cell. At this stage the parasite is divided into a number of **subdivisions**, each of which has its own small nucleus. These forms are called "rosettes" and consist of organisms that have matured and divided by segmentation into a number (eight to thirty-two) of young parasites or merozoites.

The capsule containing the mature parasites ruptures and sets free the merozoites, each one of which can attach itself to another erythrocyte and repeat the above cycle, unless it is destroyed by the phagocytic and other antagonistic agents in the blood.

Most of the malaria parasites spend their life in the capillaries of the bone marrow and spleen, where the current is slowest and the pressure lowest and not in the circulating blood.

There is a tendency for asexual reproduction of large groups of the malaria parasites (Schizogony) to take place at one time. Those that mature on the same day tend to do so at the same time every day:

The **QUARTAN** type develops in about seventy-two hours (72).

The **TERTIAN** type develops in about forty-eight hours (48).

The **ESTIVO-AUTUMNAL** type develops in about twenty-four to forty-eight hours.

After an individual has had malaria several days careful examination of the blood may reveal in addition to the asexual parasites others that are sexually differentiated (male and female gametocytes, or more commonly **gametes**). **Tertian and quartan gametes** are round or oval, irregular in outline, and ameboid. The **estivo-autumnal gametes** are oval or crescent in outline and very slightly ameboid.

Gametes do not reproduce in the body of man and do no harm. They die within one to three weeks, but, of course, new gametes may be constantly developing in the blood. Not all persons who have malaria have gametes.

2. Sexual Reproduction — (the extracorporal form).

If blood containing **gametes** is drawn into the stomach of an anopheles mosquito, **sexual reproduction** takes place. The male microgametocyte throws out long **flagellae** which soon breaks off

* Read before the Craighead-Poinsett County Medical Society, Jonesboro, Ark.

and move about in the fluid of the stomach. Such a microgametocyte penetrates the female (macrogametocyte) which is then fertilized and initiates a cycle of reproduction. The fertilized zygote in the stomach of the mosquito becomes actively ameboid, **passes through the stomach wall** and lodges on the outer surface of the stomach within the abdominal cavity. There it rapidly develops to many times its original size. At the end of the developmental period (**fifteen to twenty-five days**) it has grown into a large oocyst which contains many spindle shaped bodies (sporozoites) each of which consists of a small amount of protoplasm and a nucleus. The cyst ruptures and sets free into the abdominal cavity these young parasites called **sporozoites**. Some are carried to the salivary gland of the mosquito and introduced into the next person bitten. They begin the asexual cycle by entering the red blood cells of the human host, grow, reproduce, and give rise to clinical symptoms, usually in about fourteen days.

Only the female mosquito bites, and each one tends to return for subsequent blood meals to the place where the first was obtained. Consequently one with malaria is a greater menace to the health of those living under the same roof than to that of other people.

IV. PREVENTIVE TREATMENT (Prophylaxis)—

Malaria is carried by anopheles mosquito. As prophylaxis one should: (1) screen houses, (2) use bed nets, (3) take precautions against mosquito breeding places (drainage, oil on water, cutting weeds, fish in pools, removal of empty tin cans and rubbish that holds water), (4) thorough treatment of people with malaria, (5) quinine or atabrine prophylaxis.

V. TREATMENT OF MALARIA—

A. The drugs used in the treatment of malaria are: (1) atabrine, (2) quinine, and (3) plasmochin. Available evidence indicates that atabrine is as effective as quinine (or more so) both in suppressive use and in the treatment of clinical attacks. No available drug or plan can be expected to **prevent relapses** in all cases. Recent studies have shown that the **plasma level of the drug** is fundamental in determining its efficiency. Under ordinary conditions the drugs are absorbed about the same. **Quinine is localized in the tissues to a smaller extent than atabrine, and effective plasma concentrations therefore, are usually attained shortly after the beginning of its administration.**

1. Atabrine, on the other hand, at first is taken up to a much larger extent by the tissues,

so that effective concentration in the plasma is reached only as certain tissues become more or less saturated. In order to attain effective concentration of atabrine in the plasma, it is necessary to give relative large initial doses, or to wait for a varying period while the drug accumulates.

Plasmochin cannot be used for suppressive treatment since in safe doses it has very little effect on schizonts. For the same reason it fails to control clinical attacks of malaria; hence, ~~plasmochin alone cannot be used in clinical treatment.~~ This drug has some degree of special action in the destruction of the gametocytes, an effect that does not influence the course of the disease in the patient but might be of some value in **controlling the spread** of the disease.

Plasmochin can be given immediately after the atabrine treatment or can be given along with the latter part of the quinine treatment of malaria in correct dosages.

Toxic and abnormal effects of atabrine, quinine, and plasmochin: Some people are just naturally sensitive to each of these drugs, while other people will show untoward reactions to the first few initial doses of each.

1. ~~Atabrine may cause these mild disagreeable reactions, especially if given between meals:~~

- (1) Nausea or vomiting.
- (2) Abdominal cramps.
- (3) Headache.
- (4) Diarrhea.
- (5) Mild excitement.
- (6) Few instances of hepatic diseases associated with therapeutic doses.
- (7) Yellow discoloration of skin (due to deposit of the dye in the skin), in about 33 1/3% of all cases.

2. Quinine may cause these outstanding untoward reactions:

- (1) Tinnitus.
- (2) Impairment of hearing.
- (3) Dizziness and vertigo.
- (4) Tremor.
- (5) Palpitation.
- (6) Skin eruption.

Usually these reactions are due to individual hypersensitivity or to unnecessarily large doses.

3. Plasmochin has a small margin of safety between the therapeutic and toxic doses. The toxic reactions include:

- (1) Abdominal pain.
- (2) Nausea.
- (3) Vomiting.
- (4) Cyanosis (Methhemoglobin).
- (5) Headache.

- (6) Dizziness.
- (7) Drowsiness.

The dangerous, but rare effects are:

- (1) Hemoglobaenemia.
- (2) Jaundice.
- (3) Acute yellow atrophy of the liver.

Quinine, because of the limitation of supply, should be used only for clinical attacks in:

- (1) Severe infection with P. falciparum (tropical or EA malaria) in which intravenous therapy is deemed necessary.
- (2) Serious intolerance to atabrine.
- (3) When atabrine is not available, or
- (4) Following repeated relapses in spite of atabrine therapy, when a change of drug is considered highly desirable. In such cases a complete course of quinine may be used as follows:

Quinine sulphate one gram (grs. fifteen) by mouth three times a day after meals for two days, followed by 0.6 gm. (grs. ten) three times a day after meals for five days giving a total of sixteen grams in seven days.

B. Suppressive Treatment:

For suppressive treatment to be effective it is necessary for the drug to be taken regularly, preferably after the evening meal.

- 1. Recent experimental studies show that with the following dosage the suppressive treatment of atabrine is usually sufficient:

0.1 gm. of atabrine (gr. $1\frac{1}{2}$ or one tablet) once daily at the evening meal six days each week (total of 0.6 gm. per week), or **0.5 gm. of atabrine** (gr. $\frac{3}{4} = \frac{1}{2}$ tablet) once daily at the evening meal six days each week, and a dose of 0.1 gm. (gr. $1\frac{1}{2} = 1$ tablet) at the evening meal on the seventh day (total 0.4 gm. per week).

The maximum plasma concentration of the drug is not attained until after the third week, hence, the institution of atabrine suppressive treatment two weeks in advance of exposure may be advantageous in that a high plasma drug level is achieved by the time clinical symptoms might be expected to appear when in the endemic region.

- 2. **Quinine** because of the limited supply should not be used for suppressive treatment, except in a few select cases, and then should be given in dosage of 0.6 gm. (gr. ten) of quinine sulphate daily at the evening meal.

- 3. **Plasmochin** should not be used for suppressive treatment at any time.

C. Therapeutic Treatment:

1. **Diagnosis**—Malaria should be suspected not only in patients with **periodic chills and fever**, but also in any **obscure illness, febrile or non-febrile, in endemic regions.**

The diagnosis must be based on the actual finding of the parasites in the blood by thick and thin **smears**. If not found at first make smears on **successive days**. Sometimes in the diagnosis of malaria for a late relapse it is necessary to inject 0.5cc of **1:1000 solution of epinephrine** subcutaneously causing the parasites to appear in the peripheral blood stream.

In **P. falciparum** infections, estimate the proportion of infected erythrocytes; when 5% or more are infected, treat as you would a comatose patient when coma or medical shock occurs in a patient in or from an endemic area. **Excessive fatigue, headache, and fever** are frequently the only prodromal symptoms of CERE-BRAL MALARIA. This form may simulate acute alcoholism or the patient may be maniacal, requiring morphine. During the stage of onset, the temperature is often little elevated and **in the presence of coma it may be normal or subnormal.**

- 2. Uncomplicated malaria—Be sure that each patient takes the drug as ordered.

- a. The method of choice for treatment is **atabrine** alone. This should be given in relative large initial doses followed by smaller maintenance doses with 1 gm. (gr. xv) of **sodium bicarbonate**. Each dose should be given by mouth and with 200 or 300cc. of water or sweetened tea or fruit juice.

(i.e.) **Atabrine hydrochloride** 0.2 gm. (gr. three = two tablets) and 1 gm. **sodium bicarbonate** every six hours for five doses. Then give 0.1 gm. (gr. $1\frac{1}{2}$) three times a day after meals for six days (total 2.8 gms. in seven days).

- b. Use quinine, if atabrine is not available, in doses of quinine sulphate 1 gm. (gr. xv.) by mouth three times a day after meals for **two days**, followed by 0.6 gm. (gr. x) three times a day after meals for **five days** (total 16 gm. in seven days).
- c. Plasmochin may be given in connection with either of the above treatments. **Its routine use is not advised.** If plasmochin is given the patient should be hospitalized and ob-

served closely. Plasmochin may be given immediately following atabrine (not with it) or along with quinine on the last days of treatment with that drug in the following dosage:

Plasmochin 0.01 gm. (gr. 1/6) by mouth three times a day after meals for four days (debilitated patients should receive two doses daily) and 1 gm. (gr. xv.) of sodium bicarbonate with each dose of plasmochin.

The fluid and sugar intake should be liberal during and for some days after the course. **Discontinue plasmochin at once if any toxic symptoms appear.**

3. In malignant, pernicious, tropical or severe malaria, complicated by:

- a. Vomiting—Do not allow any solid food before a febrile paroxysm is expected. If nausea is present give sips of alkaline water. If vomiting is troublesome give from two hundred to four hundred cc., or more, of 5% glucose in normal saline intravenously to which has been added 1 mgm. of **thiamine hydrochloride for each twenty-five gms. of glucose.** (1 mgm. B₁ to each 25 gm. of glucose 5%).
- b. If coma or cerebral malaria is present or imminent, in cases of *P. falciparum* infection, give paraenteral treatment of:
 1. Quinine dihydrochloride gr. x (0.6 gm.) in 300 to 400 cc. of **normal saline**, slowly, **intravenously**. This may be repeated in six to eight hours. Or give:
 2. Atabrine dihydrochloride 0.4 gm. (gr. six) in ten cc. of distilled water **intramuscularly**. Give five cc. in each buttock. This may be repeated in six to eight hours.

As soon as the patient can take and retain oral medication give **atabrine** by mouth in such doses—two tablets every six hours for three doses then one tablet three times a day (as to give by both routes a total of **1.3 gms.** in forty-eight hours.) Then give one tablet of atabrine three times for five more days.

3. In emergencies, when atabrine and quinine for parenteral use are not available, give quinine sulphate per rectum. Give one or two gms. (gr. xv.—xxx) mixed with a starch paste, thin enough to run through a rectal catheter. This

route should not be used more than once or twice.

B. General Care and Supportive Treatment Consists of:

- a. Keeping patient in bed.
- b. Maintain fluid intake to **three to four liters** in twenty-four hours giving intravenous fluids if necessary.
- c. Be sure that the intake of **salt** is adequate as many patients with malaria may lose a great deal of salt by sweating.
- d. Relieve chills by hot water bags and blankets.
- e. Relieve high fevers by **cold sponges** and packs (**avoid anti-pyretics**). If a sedative is needed use barbiturates.
- f. In cases of *P. falciparum* infections observe the patient closely for signs of cerebral or circulatory collapse.
- g. Patients with clinical malaria should be in screened wards or under mosquito bed nets.
- h. In **CONVALESCENCE** give a generous **high vitamin diet** together with **ferrous sulfate 0.6 gm. (gr. x)** three times a day **after meals** for two weeks or longer.

C. Relapses:

1. A certain percentage of patients with malaria suffer recrudescences or relapses in spite of any available treatment. The incidence and persistence of recurrences are greatest in *P. vivax* (tertian) infection. The first free interval may be as short as two or three weeks; later on the intervals grow longer and may be many months. With each successive relapse the chance that it will be the last increases.
2. Relapses should be suspected in all patients who have a **history of malaria**. **Exposure, strenuous activity, alcoholic indulgence, trauma, and surgical procedures** frequently precipitate serious recurrences.
3. The treatment of relapses should be the same as that of the first attack, as given under the treatment of uncomplicated malaria, with this exception: The **prolongation** of the maintenance dose of atabrine to **two or three weeks** treatment. (Two tablets every six hours for five doses, then one tablet three times a day for two or three weeks).

4. In cases of repeated relapses, in spite of atabrine therapy, when it is especially desired to try to prevent further relapses, the quinine treatment as described under treatment for cerebral malaria (quinine intravenously gr. x in 300 to 400 cc. saline) and repeated in six hours. Then continue with a daily dose of 0.6 gm. (gr. x) of quinine sulphate after the evening meal for three or four weeks should be tried.

VI. SUMMARY—

1. The plasma concentration of the drug determines its efficiency.
2. Quinine reaches the necessary plasma concentration before atabrine.
3. Atabrine is taken up by the tissues more at first than quinine.
4. Quinine acts quicker, therefore, is more effective early in the treatment of cerebral malaria.
5. Atabrine is more effective in suppressive treatment and does not cause the untoward reactions that accompany quinine therapy.
6. Atabrine is as effective as quinine in all cases of malariae, except in cerebral malaria, and is usually tolerated better than quinine.
7. Plasmochin is not an effective drug to use alone to control malaria either in suppressive treatment or for treatment of clinical malaria.
8. Atabrine is the choice for treatment of malaria now because of the scarcity of quinine.

THE A.P.A.A. (NINTH) 1947 EXHIBITION*

To be held at Atlantic City, on the occasion of the Centennial Session of the American Medical Association, will also be the occasion of the judging of the "COURAGE AND DEVOTION BEYOND THE CALL OF DUTY" ART PRIZE CONTEST (\$34,000 in SAVINGS BONDS).

This contest was originally scheduled for the 1946 A.M.A. Session but has been postponed one year, upon the best advice, in order to give more physicians an additional year to complete their art pieces on this special prize subject.

* For further information regarding both the SAN FRANCISCO 1946 and the Atlantic City 1947 ART EXHIBITS, physicians may write either the American Physicians Art Association Secretary-Treasurer, Dr. Francis H. Rodewill, Flood Building, San Francisco, Cal., or the sponsor, Mead Johnson & Co., Evansville 21, Ind.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

TACHYCARDIA AND ITS TREATMENT Part II

PAUL D. WHITE, M. D.
Boston, Mass.

Auricular Flutter

"Auricular flutter is relatively uncommon but it may explain a few of the paroxysms of tachycardia that occur in fairly normal individuals which are never recorded graphically. In an electrocardiographic laboratory series it is one of the rarer disorders of rhythm.

Mechanism. Auricular flutter is apparently the result of a regular circus action in the auricle in the neighborhood of the sinus node. The usual rate of the auricle in flutter is between 200 and 300 and the ventricular rate half that, due to the occurrence of two to one block; rarely one to one rhythm exists.

Etiology. The condition occurs in adults chiefly, in both sexes, and the exciting factors are the same as for auricular paroxysmal tachycardia except that there is a much higher incidence of heart disease, that is, the majority of the patients who show auricular flutter have heart disease, particularly mitral stenosis.

The diagnosis is easily made by electrocardiogram and with difficulty in any other way. Temporary halving of the heart rate by carotid sinus pressure is, however, a clue; the 2:1 a-v block is thereby changed to 4:1 pro tem. Attacks are generally more prolonged than are those of simple auricular paroxysmal tachycardia.

The prognosis is less favorable than for auricular paroxysmal tachycardia because of the higher incidence of heart disease in the group, and because of the longer paroxysms. Sometimes the flutter continues in more permanent form lasting for years.

The treatment is simpler than that for auricular paroxysmal tachycardia for the drug par excellence is digitalis. Digitalization should be maintained either until the attack is over, with

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

the re-establishment of normal rhythm, unless the state of the heart demands the maintenance of digitalization because of myocardial weakness, or permanently if there ensues persistent auricular fibrillation. Quinidine sulphate will restore normal rhythm in some cases, but it is less useful in the long run than is digitalis. Carotid sinus pressure is ineffective; it simply increases temporarily the grade of block. The other drugs mentioned for the treatment of auricular paroxysmal tachycardia are not indicated.

Auricular Fibrillation

Auricular fibrillation, much commoner than auricular flutter in the ratio of about fifteen to one, is infrequently found in the absence of heart disease. Nevertheless there is a considerable number of normal persons who have paroxysms of auricular fibrillation. I have personally seen at least 100 such and follow up studies have indicated that there may be neither heart disease nor deleterious effects from the paroxysms of auricular fibrillation. Attacks are often very infrequent and may actually occur only once.

The mechanism of auricular fibrillation is like that of flutter but with a circus wave at a faster and irregular rate and irregular ventricular response. The heart rate in a paroxysm of auricular fibrillation is usually close to 150 and absolutely irregular.

Etiology. Both sexes and all ages after early childhood are affected by paroxysms of auricular fibrillation. However, such attacks increase in frequency with increasing years and are common in old age. The most prominent underlying factors are mitral stenosis, thyrotoxicosis, and a combination of hypertension and coronary disease. Excitement, effort, tobacco, infection, and infarction are the most common exciting factors.

Diagnosis. The electrocardiogram gives immediate evidence of the condition and is of great diagnostic aid when there is a question as to clinical interpretation. It may be said, however, that any tachycardia at a rate of over 120 that is grossly irregular is almost certainly the result of auricular fibrillation.

The prognosis in auricular fibrillation depends on two factors, (1) the underlying heart condition and (2) the treatment. In the absence of heart disease the prognosis is excellent and the attack usually subsides spontaneously and may never recur. In the presence of heart disease the prognosis depends on the severity of the heart disease and also somewhat on the ease with which the ventricular rate can be controlled by

treatment. It is possible to have recurrent auricular fibrillation over periods of many years, as long as twenty or twenty-five or more; on the other hand, if the heart is in very serious condition the onset of auricular fibrillation may kill the patient in a few hours.

The treatment of auricular fibrillation is much like that just outlined for auricular flutter. Ordinarily, digitalization is wisest, but for a paroxysm that has recently come on, that is, within a few hours or days, the use of quinidine sulphate may be the best measure. The patient should be at rest and take six grains of quinidine sulphate every two hours for three to six doses as needed, under close observation and preferably with electrocardiographic control. The record should be taken every two hours or just before the next dose is due in order to observe the changing rate of the auricular circus which generally slows as the case evolves favorably, along with an increasing ventricular rate; it is also important to watch electrocardiographically for toxic effects, particularly the occurrence of bundle-branch block. The other measures noted under auricular paroxysmal tachycardia are ineffective or harmful in the presence of auricular fibrillation. Morphine is usually unnecessary and to be avoided unless there is acute pulmonary edema or the status anginosus, as described above under the section on auricular paroxysmal tachycardia. Often paroxysms stop spontaneously in a few hours.

A-V Nodal Paroxysmal Tachycardia

This is a very rare and unimportant variety of paroxysmal tachycardia to be diagnosed only by electrocardiogram and then only with great caution. It is due to rapid impulse formation in the a-v node of Tawara with control of both ventricles and auricles from that point (the P waves of the electrocardiogram are inverted and just follow, precede, or occur simultaneously with the QRS waves). It is to be considered in all its aspects and to be treated like auricular paroxysmal tachycardia.

Ventricular Paroxysmal Tachycardia

Ventricular paroxysmal tachycardia is much less common than auricular paroxysmal tachycardia in the ratio of about one to six.

The mechanism is doubtless similar to that in auricular paroxysmal tachycardia or auricular flutter, except that the impulse originates in the ventricular muscle or bundle branches.

Etiology. It occurs in both sexes but is much more limited to older persons than is auricular

paroxysmal tachycardia; it is rare in youth. It is a much more serious condition because of the higher incidence of important heart disease or toxic states. Exciting factors are as noted above under auricular paroxysmal tachycardia, but the underlying factors are mainly myocardial infarction, usually fairly fresh, and digitalis poisoning of high degree. Rarely does it occur in normal individuals, but we have seen a few young persons with apparently normal hearts who have shown ventricular paroxysmal tachycardia rather than auricular paroxysmal tachycardia.

The diagnosis is to be made with certainty only by electrocardiogram and is shown by the abnormally shaped QRS waves which resemble repeated ventricular premature beats, the heart rate usually running at about 160. The auricles beat independently and the P waves may sometimes be clearly seen superimposed on the QRS and T waves. It is to be distinguished from auricular paroxysmal tachycardia with bundle-branch block, but this it is not always possible to do, even by electrocardiogram, unless the independent P waves are clearly identified. Clinically, one may suspect ventricular paroxysmal tachycardia in contrast to auricular paroxysmal tachycardia if there is a definite but slight arrhythmia or anisophygmy during the paroxysm. The duration of the attacks is much like that of auricular paroxysmal tachycardia, that is, minutes or hours, rarely days or weeks, and almost never prolonged beyond that time.

The prognosis is unfavorable in general because of the severe underlying heart disease or toxic state and because of the ominous experiences of the past. As I have said above there are few normal cases who have had such paroxysms and a number who with heart disease really do well, but for most cases ventricular paroxysmal tachycardia presages a short life, sometimes only a few hours, and rarely more than a few months or years, unless some toxic condition like digitalis poisoning can be blamed and subsides quickly.

The treatment of ventricular paroxysmal tachycardia is like that of auricular paroxysmal tachycardia especially with respect to the use of quinidine; this drug is in fact more effective in ventricular than in auricular paroxysmal tachycardia. The other preparations have not seemed to be effective or advisable. Absolute rest is essential and morphine is more often indicated in emergency than in the other conditions noted above, in which it should almost always be withheld.

OBITUARY

BENJAMIN H. HAWKINS, age 67, Mena, died January 13th. Born near Parks, Arkansas, he graduated from the University of Arkansas School of Medicine in 1904 and had continuously practiced at Mena until illness forced his retirement a few months ago. He had held all of the offices in the Polk County Medical Society and had represented the Society as delegate to the Arkansas Medical Society for many years. He was a fellow of the American Medical Association. For a number of years he operated the Mena Hospital and had disposed of his holdings only a few weeks ago. He was a trustee and member of the board of stewards of the Methodist church. A brother, John Hawkins, of Parks, survives him.

JOHN SAMUEL WILSON, age 66, Monticello, died January 7th. Born in Grant County, he received his preliminary education in Little Rock and graduated from the University of Arkansas School of Medicine in 1913. Except for his period of service in the army medical corps during World War I and for ten years at Lake Village, he had practiced at Monticello since graduation. He was a member of the Drew County Medical Society, in which he had held all of the offices, of the Arkansas Medical Society, of the Radiological Society of North America, a fellow of the American College of Radiology and of the American Medical Association, a diplomate of the American Board of Radiology and secretary of the Arkansas Radiological Society. He was a member of the Monticello post of the American Legion, of the Rotary Club and a deacon in the Methodist church. Surviving relatives are his wife and three daughters.

EDWARD CHRISTOPHER McDANIEL, age 71, died at his home in Tyronza December 4th. Born at Atoka, Tennessee, October 6, 1874, he graduated from the Saint Louis College of Physicians and Surgeons in 1901. He first located at Wilson but came to Tyronza three years later. He was an active civic leader and served as Arkansas vice-president of the Tri-State Medical Society in 1916. Surviving relatives are his wife, two sons and a daughter.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE Fourteenth Annual Report of the Tuberculosis Committee of the American Student Health Association records the success of measures to control tuberculosis practiced by progressive institutions of learning in all parts of the country. The results must not be measured solely by the number of cases discovered. In the age group concerned this will always be small as compared to the general population. The search for cases, however, affords a unique opportunity for health education of both faculty and students. The practical demonstration of how to prevent tuberculosis will influence habits of thought and action long after text-book lessons are forgotten. This should make for closer cooperation between patient and physician the country over.

TUBERCULOSIS AMONG COLLEGE STUDENTS

During the past three years there have been many factors which have interfered with the normal functioning of college health services. Yet the number of institutions having to discontinue their tuberculosis programs has been less than was anticipated. The Committee is confident that as our college enrollments return to normal and adequate medical personnel becomes available, we shall witness substantial progress in college health activities.

Many colleges are now planning for expansion which will provide more adequate health programs. The need for this may be better understood from the fact that less than half of the 886 colleges queried replied at all and of the 886 less than a third had tuberculosis programs. It may be safely assumed that those colleges which did not reply were without effective health programs.

The enrollment at colleges conducting case-finding programs in 1942-43 was 406,626. They reported 522 newly discovered cases of tuberculosis, a rate of 128 cases per 100,000 enrolled students. During the past school year, student enrollment at those institutions having survey programs was 286,018. Yet 622 new cases of tuberculosis were diagnosed, a rate of 217 per

100,000. This represents an increase of 19 per cent in the number of new cases of tuberculosis found in a student population which was 30 per cent below that of the previous year and reflects considerable improvement in the effectiveness of case-finding procedures. Of the 622 cases of tuberculosis diagnosed during the year at those colleges having case-finding programs, the lesions were classified as unstable in 156, quiescent in 151 and 315 were designated as healed. At many institutions the original tuberculosis program was frequently limited to entering students, whereas in recent years it has been expanded to include the entire student body.

There are now 93 universities and colleges which are conducting what may be considered practically ideal programs of tuberculosis control. Seventy-four colleges do routine tuberculin testing and X-ray all positive reactors each school year. Nineteen colleges report that chest X-rays are provided for all students annually, they having dispensed with preliminary testing. The programs of both groups of colleges offer a high degree of protection to their students. Cases of advanced tuberculosis among students at these 93 institutions should be encountered very rarely indeed, with such close supervision.

Reports were received from 114 colleges which do not sponsor any type of tuberculosis program. Student enrollment at these institutions was 121,-

133. There were 14 students found to have tuberculosis, a rate of 12 per 100,000. On the basis of this year's experience, therefore, colleges with case-finding programs diagnosed 18 cases of tuberculosis for each case diagnosed at those schools having no program. Such evidence should leave no doubt as to the wisdom of employing modern case-finding methods in every college.

The Committee again believes it advisable to emphasize the need for active treatment in the majority of cases of tuberculosis found among young men and women of college age. Of the 622 new cases of tuberculosis among students 73 per cent of all new cases diagnosed during the year were permitted to remain in college. A considerable proportion of this group may experience progression of their disease and will eventually have to undergo treatment. Considerable time may elapse between the development of a new, unstable tuberculous lesion and the appearance of symptoms. Certainly every student who is found to have tuberculosis of recent development should be given the advantage of early treatment. Only when the lesion is judged to be stable and fibrotic is it justifiable to postpone treatment pending a period of observation.

The college which is attempting to protect its students against tuberculosis should give some thought to the possible dangers of non-student contacts. During the year there were 59 cases of tuberculosis diagnosed among faculty members and other employees and 18 cases among food handlers. Since the number of food handlers employed by a college is relatively small in comparison with the student enrollment, no great expense is involved in providing annual chest X-rays for this group.

The Committee believes there is ample evidence to justify the following statements relative to case-finding procedures commonly employed among college students:

1. The incidence of tuberculous infection among college students is steadily decreasing. The majority of reports from colleges in 1943-44 indicate infection rates varying between 15 and 30 per cent.

2. The two-dose Mantoux method is recommended as the method of choice for tuberculin testing. If a single test dose is employed, an intermediate dose of at least 0.1 mg. O.T., or

0.0001 mg. P.P.D. should be used. The Vollmer patch test cannot be recommended for use in colleges.

3. The Mantoux test is highly dependable in eliciting sensitivity due to significant tuberculous infection or disease. It is sound practice, and in the interests of economy, to provide chest roentgenograms for only those students who react to an adequate dose of tuberculin.

4. Complete protection against tuberculosis for college students cannot be attained through a program limited to the student body. Faculty members and employees, including food handlers, should participate in the tuberculosis control program on the same basis as students.

5. The lesions of pulmonary tuberculosis encountered in college students are, in a majority of instances, unstable and potentially dangerous. The absence of symptoms does not preclude the necessity for early treatment. Students who remain in college having pulmonary lesions, should be under close observation with frequent clinical and roentgenographic studies.

WOMEN'S AUXILIARY NEWS

Mrs. Davis W. Goldstein and Mrs. W. F. Rose were hostesses Monday for a luncheon and business meeting of Sebastian County Medical Society Auxiliary, of which Mrs. Goldstein is president. Luncheon was served Monday, January 14, 1946.

Mrs. Goldstein conducted a routine business meeting at which she made a report on Christmas boxes prepared by members of the Auxiliary for patients at Camp Chaffee station hospital.

Mrs. Stanley Gates and Mrs. Charles Seaman were enrolled as new members. Mrs. E. D. Wolfe was a guest. Auxiliary members present in addition to the hostesses, Mrs. Rose and Mrs. Goldstein, were Mrs. Charles T. Chamberlain, Mrs. Walter G. Eberle, Mrs. S. J. Wolferman, Mrs. J. Kenneth Thompson, Mrs. E. C. Moulton, Mrs. W. L. Shippey, Mrs. H. B. Thompson, Mrs. J. S. Southard, Mrs. I. Fulton Jones, Mrs. W. R. Brooksher, Mrs. Fred Krock, Mrs. S. P. Stubbs.

Mrs. W. F. Rose, Publicity Chrmn.,
Sebastian County Medical Society
Auxiliary.

THE JOURNAL

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W. R. BROOKSHER, M. D., Editor

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EDITORIAL

BULLETIN OF THE COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS, AMERICAN MEDICAL ASSOCIATION

The second session of the Seventy-ninth Congress opened January 14th. It promises to be a very busy Congress. Some of the most vital legislation is on the opening program. As yet we have heard nothing regarding the hearings that we expect the Senate Committee on Education and the House Committee on Interstate and Foreign Commerce may conduct on the Wagner-Murray-Dingell bills. The chairmen of both committees have stated that they intend to give the bills hearings as soon as they can arrange their programs. In the meantime, it is well to remember that the other Wagner-Murray-Dingell bills, namely, S. 1050 and H. R. 3293 are on the dockets of the Senate Finance Committee and the House Ways and Means Committee. It is altogether possible that these committees may give the bills a hearing, especially since the House Ways and Means Committee is making a study of the Old Age Security law with the idea of suggesting revisions. You will recall that

the Dingell bill includes amendment of the Old Age Security law.

These two bills were analyzed in the Journal of the American Medical Association in the June 2, 1945, edition, but it might be well to emphasize a few of the important points brought out in that analysis:

Provisions for grants and loans for hospitals and health center construction. Title corresponds closely with the provisions of the Hill-Burton Hospital Construction bill with significant exceptions. The Hill-Burton bill which is more acceptable, has passed the Senate and will very likely pass the House.

Another section proposes grants to states for maternal and child health services, for services for crippled children and for child welfare. This is similar to S. 1318 which the House of Delegates disapproved by resolution.

It also proposes grants to states for the development of more effective measures for the prevention, treatment and control of venereal diseases and tuberculosis.

It would grant subsidies to states for use in providing medical care for needy individuals.

But the section to which we are particularly opposed is that which would set up a national social insurance system as a part of the Social Security system. Some of the objectional features are:

Bureaucracy

It is appalling the bureaucratic control that would be necessary to administer a scheme of this type which would include, according to Senator Wagner's estimate, 135,000,000 people. It would require an army of inspectors, continually checking on the relationships of patients to physicians, to hospitals, to pharmacies; another army of auditors checking on the expenditures of funds; a smaller army of statisticians who would collect the data for the justification of the expenditures. If the experiences of European countries can teach us anything, many small bureaus and offices will be necessary throughout the country as centers for the local administration. All of these will be equipped with stenographers, clerks, bookkeepers, and will require rental and equipment appropriations. No small expenditure will be involved in the provision of printed forms which are so necessary in all government activities.

Free Choice

It is said the bill offers the insured free choice of physicians. It must be remembered, however, that free choice can be exercised only among the physicians who are willing to accept government

employment, and experience in other countries has shown us that where physicians are too popular, the government limits the number of patients permitted a physician; thus, obliging some to be content with a second or third choice. In the rural districts where medical care is limited and the government must provide, of course the residents will be obliged to be satisfied with whom-ever the government employs.

Eligibility

To be eligible for medical benefits, the individual must have been currently insured for a period of at least a year and a half immediately preceding the time of making a claim, and must have earned not less than one hundred fifty dollars (\$150.00) in the first twelve (12) months of that period. The bill provides, however, that the Surgeon General may determine for any calendar year or part thereof that every eligible individual "pay a fee with respect to the first service or with respect to each service in a period of sickness or course of treatment," and "shall fix the maximum size of such fee." He may also "limit the application of such fees to home calls, to office visits or to both, and may fix the maximum total amount of such fee payments" and further, "may also provide for differences in the maximum size of such fees or total amount of such fee payments for urban and rural areas" where differences occur between states or communities.

Cost

S. 1050 and H. R. 3293 provide that every employed person shall contribute four per cent of his wages while the employer contributes another four per cent, and the self-insured shall contribute two and one-half per cent of his income while the state or community contributes another two and one-half per cent. The amounts of these contributions will, of course, vary with the prosperity of the country. The deficits, naturally, will have to be met with funds from general taxation.

JOURNAL SAYS PARRAN'S LETTER WOULD "MUZZLE" HEALTH STAFF

A letter sent by Surgeon General Thomas Parran of the U. S. Public Health Service to all officers of that governmental agency on the National Health Program has "created amazement and consternation" within the medical profession, according to an editorial in the January 12 issue of *The Journal of the American Medical Association*.

The mimeographed letter sent out by Surgeon

General Parran, under date of December 10, follows:

Enclosed is a copy of House Document No. 380, which is the full text of President Truman's message to the Congress on a national health program, a subject of the highest importance to every citizen. The message contains a comprehensive analysis of the health problems of the country and recommendations as to the pattern of legislation to deal with them.

It is a source of particular satisfaction to all of us who labor for the public health advancement that this should be the special subject of a Presidential message. For the first time we have the major elements of a national health policy officially stated in comprehensive terms. This has been a goal of all public health workers for many years, and the enunciation of such a policy by the Chief Executive gives the Public Health Service definite objectives for its future work.

On the same day as the message was delivered Senator Wagner introduced (for himself and Mr. Murray) S. 1606, and Representative Dingell introduced H. R. 4730, designed to implement the proposals of the President. In addition, several bills are pending in the Congress dealing with special phases of the President's legislative program. These include the hospital construction bills, the national mental health bills and the stream pollution bills, each of which would impose substantial additional responsibilities on the Public Health Service.

The appropriate executive agencies of the government have been specifically instructed by the President to assist in carrying out his legislative program as presented to the Congress on September 6. The President wrote to the administrator of the Federal Security Agency on October 4 requesting him "to take primary responsibility for legislative measures necessary to carry out the part of my message (Sept. 6, 1945) outlined in section 21 concerning a national health program to provide adequate medical care for all Americans and to protect them from financial loss and hardship resulting from illness and accident."

Every officer of the Public Health Service will wish to familiarize himself with the President's message and will be guided by its provisions when making any public statement likely to be interpreted as representing the official views of the Public Health Service.

THOMAS PARRAN, Surgeon General.

Commenting editorially on the letter, *The Journal* said:

"If the fourth and fifth paragraphs of this letter say what they seem to say, the President of the United States has instructed the executive agencies of the government to get behind his legislative program for the extension of health. The Surgeon General of the U. S. Public Health Service goes into action, ties the Wagner-Murray-Dingell bill right into the program and at least hints to his officers that they had better be careful about making any public statements with regard to the message.

"Many of those addressed in this instance are physicians in the private practice of medicine in the United States. They volunteered their services in the formation of hospital units to aid the people of this country in an emergency; they

continued their membership in the Reserve of the Public Health Service after the war itself ended because it seemed to be desirable to have an emergency service available. If, however, men are to be directed in their thinking or muzzled in their speaking incident to their desire to be of service to the health of the nation, their rights as American citizens will have to prevail. Reserve officers will have to consider seriously whether or not they wish to maintain any official connection with such a federal agency. Incidentally, it might have been better if General Parran had, in these final two paragraphs, said in shorter and clearer sentences exactly what he meant to convey."

RANDOM THOUGHTS OF THE SECRETARY

January 1st. For long weary years of war we have prayed and waited for this year. May goodwill and understanding prevail among the nations—for ourselves, our children and our children's children.

January 2nd. On this day Berry Moore makes the "Believe-It-Or-Not" column.

January 2nd. We give Hirohito exactly 50% on his statement that he is not divine, merely human.

January 6th. Conferring today with Hayes and Banks on plans for the annual session of the Society finding Hayes a gracious host despite shortages in planned supplies and then to call on Bill Stover, no shirker on Sunday work himself and a source of much information on returning medical officers. Away by Braniff the plane being forced to make another circle of the field after going into the glide for the home airport because of a Cub—an annoyance this Cub pilot will never give a DC—No. 3.

January 7th. In staff meeting tonight gratified with Chamberlain over the monthly hospital report which records medical admissions as 125 and surgical as but 39, an indication possibly that medicine is yet to come into its own but more amazed over the fact that there were 48 "not treated" cases on the statistical report for the month, offering the opportunity, perhaps, for another physician to have a practice.

January 9th. Sebastian County returns to peace-time banquet session honoring the returned medical officers and, in turn, entertained by their lightly-censored recital of experiences. Goldstein renames us "Diet Smith," another inspired bit of heckling, and the party adjourns as one of the more successful of the more than sixty this county society has held.

January 10th. There are those born to whom loquaciousness is a trait not to be denied even though the aftermath may prove disconcerting on frequent occasion, as witness Goldstein's frank confession of inability of the surgical and medical staff to ascertain the cause of the patient's disability, giving full credit for recovery to a kind Providence, oblivious that the patient's daughter-in-law, sitting in the room, is an ardent Scientist.

January 12th. Tonight privileged to be among the number honoring our "Grand Old Man of the Arkansas Medical Society," M. L. Norwood, who is completely surprised over the occasion, yet well able to give advice which may well be heeded by those who follow. A rare evening of conviviality and good fellowship and could we but have more of these meetings, the problems of med-

icine and medical organization would speedily be met by a unified profession.

January 18th. Today in Saint Louis with many an interested physician to give study to proposed Federal legislation, Father Schwitalla giving us the few humorous remarks of the session as we banquet tonight.

January 19th. Continuing with profit the dissection of bills, wondering all the while how best to impress upon every physician that his personal individual efforts are most important to the survival of private medical practice. Homeward with the Oklahoma delegation, Stevenson, Keller and Graham, busily engaged in campaign plans for Keller's medico-political future, the outcome none too bright in view of his lack of interest.

January 20th. In quiet Tulsa for five dreary hours this Sunday morning awaiting a fog-bound airplane, finding that Bishop's serve good food as always but naught else of interest.

January 21st. For the first time we are called upon to address a conference of medical officers in this war period, taking as our subject the Truman health message and its implementing legislation, finding the army doctors interested in what happens even though, as yet, they can not write their Congressmen.

COMMUNIQUE

December 14, 1945
Marine Transport
Squadron 152,
Fleet Postoffice,
San Francisco.

To the Editor:

The arrival of the October Journal today reminded me that I owe another letter as part payment for the many "Random Thots" and other kindnesses of the past 3 1/2 years.

My outfit is now in North China transporting patients, passengers and cargo wherever the marines need them to go. We have been moving in here at Tsingtao since the latter part of September and have men stationed at airfields in Shanghai, Peiping and Tsingtao. As part of the marines in China we are sitting in the midst of the big black area of Communism so vividly portrayed in a recent Time magazine, but actually we sort of hover over the so-called danger area without being too much aware that it is there.

I have had several good liberty days in Shanghai, Peiping and Tsingtao and find these cities, the Chinese people and the miles and miles of intensely cultivated land a source of interest and awe. When one sees the miles of treeless geography from the air and observes the rivers and their branches seem to crawl and twist over millions of cultivated patches of earth, he has seen the Chinese dragon in its own back yard. Shanghai with its international settlement and its plentiful supply of everything that money can buy is a world of its own. Peiping with its mas-

sive walls, Temple of Heaven, Forbidden City, palaces, temples, cities within cities, shops, modern hotels, night clubs, Marco Polo bridge, Marines, Russians, Chinese, Japanese, Chinese and Chinese, defies description. Tsingtao is 15 miles from camp on the bumpiest darn, formerly paved, road, ever disfigured by man and it contains all the promise, venereal disease, modernized buildings, distorted Chinese versions of European culture and things that a gang of marines are able to stir up.

I expect to be on my way to the States and relief from active duty in a few days. To say I'll be glad to get back to Little Rock, my family, and the practice of surgery, is a mild expression of my real feelings. Here's a few reasons why: I've seen 12,000 marines gradually absorbing the worms of filiarasis on Samoa, Wallis and Ellice Islands; I've treated wounded and dazed boys from Funa Futi, Nonomea, Kawajalein; I've visited battlefields, graveyards and caves on New Guinea, Russells, Green, Manus, Mortai, Hollandia, Zamboanga, Samar, Leyte, Pelilieu and Okinawa; I've been rescued from a wrecked flying boat 120 miles from land and have thrown all my personal gear out of a transport plane to lighten the load on a single engine; I've seen the ruins of Manila; I've spent the day with 5,000 army boys on Canton Island which has one coconut tree for shrubbery; I've bumped my head on a million pipes and gadgets in transport ships, aircraft carriers, airplanes, Japanese-built houses and jeeps; I've treated "tropical crud" until the world looks blue and then started all over again and treated the same boys for winter diseases and Chinese Bu How; I've answered every imaginable question on women, sex, venereal diseases, sea sickness, air sickness and homesickness at least 1,200 times; I've been reprimanded by a half dozen colonels and one general, God bless his onery soul; I've had at least 50 friends who were killed in airplane accidents, and almost as many killed in aerial combat; I've seen 30,000 well-fed Japs surrender on Bougainville and have seen the starved Jap prisoners from dozens of Pacific Islands; I've picked souvenirs out of boxes containing thousands of items belonging to dead Japs; I've talked with pilots a few hours after they visited Tokyo, Hiroshima and Nagasaki; and I am now living in a housing area where Japanese occupy most of the houses around us.

In other words, I am tired of the service and homesick for good old Arkansas living.

Well, I'll be seeing you soon and thanks again for the "Random Thots" and all.

Sincerely, Gilbert O. Dean.

PROCEEDINGS OF SOCIETIES

The Ouachita County Medical Society met in regular monthly session January 3. Dr. and Mrs. John P. McAlister of Camden entertained the doctors in their home with a delightful turkey dinner. Dr. Robert Watson of Little Rock spoke on "Head Injuries" and Dr. Ellery Gay of Little Rock spoke on "Burns."

R. B. Robins, M.D., Secretary.

Sevier County Medical Society has elected the following officers: President, R. C. Dickinson, Horatio, and secretary-treasurer, C. E. Kitchens, DeQueen.

The Benton County Medical Society met in dinner session at Bentonville, January 10th, for the following program: "Diseases of the Heart," Hollis H. Buckelew, Rogers, and a paper by Dr. J. S. Thompson, Gravette.

Geo. M. Love, Secretary.

The Washington County Medical Society was addressed January 1st by Wm. J. Butt on "Experiences in the European Theater of War."

Ruth Ellis Lesh, Secretary.

Polk County Medical Society has elected the following officers: President, E. M. Miers; vice-president, C. A. Campbell; secretary-treasurer, Pierre Redman; delegate, B. H. Hawkins, and alternate, E. M. Miers.

The Sebastian County Medical Society met in annual banquet session January 9th with the following who have returned from military service as honor guests: Amis, Gate's, Hederick, Henry, Hoge, Krock, Shippey, Stubbs, Seaman, Stocker, Thompson, Whittaker, Wolfe and Woods.

Arkansas County Medical Society has elected the following officers: President, C. W. Rasco, Jr., DeWitt; vice-president, Arthur Fowler, Humphrey; secretary-treasurer, R. H. Whitehead, Jr., DeWitt; delegate, R. H. Whitehead, DeWitt, and alternate, S. A. Drennan, Stuttgart.

Cleveland County Medical Society has elected the following officers: President, S. C. Johnson, Kingsland, and secretary-treasurer, W. G. Hancock, Rison.

Hempstead County Medical Society has elected the following officers: President, James G.

Make Plans Now to Attend
ANNUAL SESSION
ARKANSAS MEDICAL SOCIETY
LITTLE ROCK

April 15th, 16th and 17th, 1946

Keep 'Em Flying
Keep 'Em Floating
Keep 'Em Rolling!
BUY VICTORY BONDS

A Collection Service Where
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A record of twenty-eight years service to Doctors, Clinics and Hospitals insures a kindly and understanding service to your debtors . . . Since **all money is paid to you**, you are still guardian of your accounts and all monies . . . You pay us commission only on such amounts as are paid to you . . . Won't you please write for a list of our Doctor and Clinic clients in Arkansas, and enlist our help, while the time for collections is opportune?

READING & SMITH SERVICE BUREAU
COMMERCE BUILDING KANSAS CITY 6, MISSOURI

Martindale; vice-president, Jim McKenzie; secretary-treasurer, J. W. Branch; delegate, G. E. Cannon, and alternate, H. G. Heller.

The Sixth Councilor District Medical Society met in dinner session honoring M. L. Norwood, Lockesburg, at DeQueen, January 12th. The following program was presented: "The Progress of Medical Legislation Since 1903," M. L. Norwood, and "The Serious Side of Medical Progress," L. J. Kosminsky, Texarkana. Officers elected are: R. R. Kirkpatrick, Texarkana, president; J. B. Hesterly, Prescott, vice-president, and J. Walter Jones, Texarkana, secretary-treasurer.

The Fifth Councilor District Medical Society met in dinner session at El Dorado January 8th for the following program: "Carcinoma of the Lung: Early Diagnosis and Possibilities of Treatment," Alton Ochsner, New Orleans, and "The Urinary 17-Ketosteroids: The Rise of Our Knowledge of their Origin and Excretion and Their Clinical Significance," W. W. Scott, Chicago. The following officers were elected: President, Berry L. Moore, El Dorado; vice-president, John P. McAlister, Camden, and secretary-treasurer, Joe Rushton, Magnolia.

Saint Francis County Medical Society has elected the following officers: President, J. S. Davidson; vice-president, J. M. Roy; secretary-treasurer, J. O. Rush (re-elected for the 43rd time to this office), and delegate, C. N. Bogart.

Cross County Medical Society has elected the following officers: President, Thos. G. Price, Wynne; Vice-president, R. L. Hickman, Hickory Ridge; Secretary-treasurer, Thos. Wilson, Wynne; Delegate, A. F. Barr, Cherry Valley.

Union County Medical Society has elected the following officers: President, M. V. Russell; Vice-president, H. J. Mayfield; Secretary-treasurer, G. D. Murphy, Jr.; Delegates, E. J. Munn, A. D. Cathey, and Alternates, J. H. Pinson and D. E. White.

Conway County Medical Society has elected the following officers: President, C. E. Etheridge; Vice-president, J. M. Matthews, Jr., and Secretary-treasurer, C. Ray Williams. H. E. Mobley addressed the Society at its January 16th meeting on "Surgical Preparation of Patients."

C. Ray Williams, Secretary.

PERSONALS AND NEWS ITEMS

R. E. Schirmer has been released from military service and has located in Camden.

Gaston Hebert has been released from military service and has returned to practice with offices in the Medical Arts Building, Hot Springs National Park.

C. N. Bogart has been released from military service and has returned to practice at Forrest City.

Max A. Baldrige, Conway, has been released from military service and is now taking post-graduate work in ophthalmology with Drs. Howard and Lawrence Post in Saint Louis.

Joseph O. Boydstone has been released from military service and has opened offices at 201 Medical Arts Building, Hot Springs National Park, for the practice of endocrinology.

Floyd S. Dozier, who has been taking post-graduate work at Washington University, Saint Louis, since his release from military service September 21st, has returned to practice at Wilson.

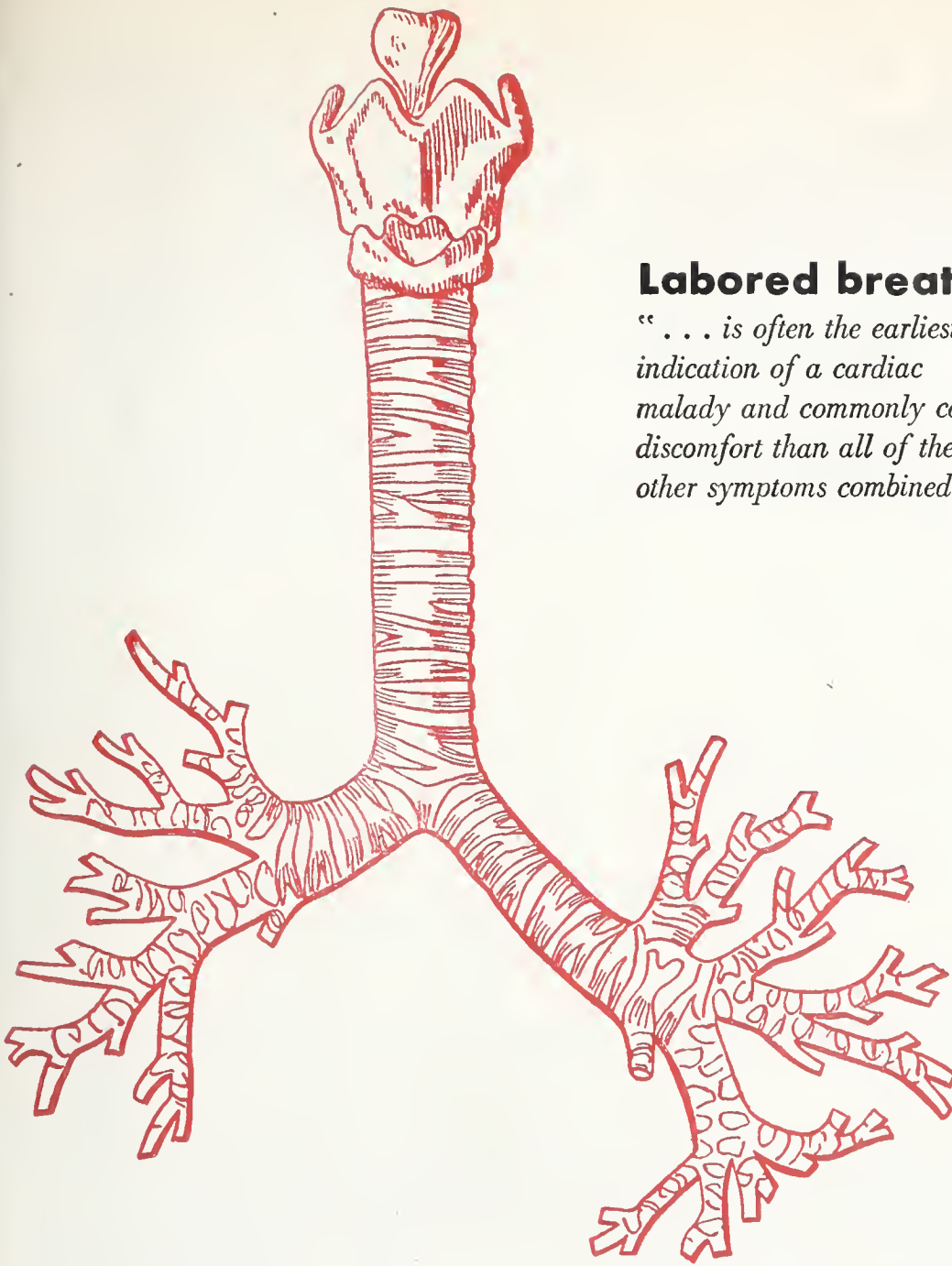
W. H. Daubs has moved from Texarkana to DeKalb, Texas.

J. Wirt Burnett has been released from military service and has returned to practice at Texarkana.

A. M. Elton has been elected director of the First National Bank, Newport.

A. F. Hoge has been elected director of the City National Bank at Fort Smith.

M. L. Norwood, Lockesburg, was guest of honor at a banquet held on his birthday, January 12th, at the Hay-Mac Club, DeQueen. A watch, engraved in an expression of appreciation for his years of service to the Arkansas Medical Society, was presented to the honor guest. Present were: President Archer; President-elect Wade; Councilors Evans, Thompson, Martin, Hunt; Past-presidents Allbright, Kosminsky, McCaskill, Rhinehart, Buchanan, H. Fay H. Jones, Jos. F. Shuffield, R. B. Robins; and E. Driver Rowland, Hot Springs; W. Decker Smith, Roy Basket, J. T. Jones, L. P. Good, and R. R. Kirkpatrick, Texarkana; L. J. Harrell and J. B. Hest-



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1. Harrison, T. R.: *Cardiac Dyspnea*,
Western J. Surg., 52:407 (Oct.) 1944.

SEARLE *Research in the Service of Medicine*

erly, Prescott; J. S. Hendricks, DeQueen; R. C. Dickinson and R. B. Dickinson, Horatio; E. W. Yates, Foreman; W. R. Brooksher, Fort Smith; I. G. Jones, G. L. Kimball, DeQueen; Don Smith, Hope; Peter A. Deisch, Helena.

J. S. Coffman has been elected president of the Citizens Bank at Lavaca.

F. A. Corn, formerly of Lonoke, has located at 441 Donaghey Building, Little Rock, for the practice of dermatology.

John L. Ruff has been released from military service and is spending terminal leave with his father, Dr. Horace Ruff, in Little Rock.

John E. Greutter, Jr., has been released from military service and has opened offices for practice in the Donaghey Building, Little Rock.

W. C. Magness has been released from military service and has returned to practice at Camden.

Raymond C. Cook has been released from military service and has returned to practice with offices in the Donaghey Building, Little Rock.

Clyde D. Rodgers has been released from military service and has returned to practice with offices in the Hall Building, Little Rock.

Carroll F. Shukers has been released from military service and has returned to the faculty of the University of Arkansas School of Medicine.

Ross Maynard has been released from military service and has opened offices for practice in the National Building, Pine Bluff.

James McDonald Hayes has been released from military service and has returned to practice with J. Harry Hayes, 202 Donaghey Building, Little Rock.

M. W. Chastain, Bentonville, has been released from military service and is at present under a fellowship appointment in ear, nose and throat at Bellevue Hospital, New York City.

"Pregnancy in a Diverticulum from the Uterus" by Martin C. Hawkins, Jr., Searcy, appeared in the American Journal of Obstetrics and Gynecology, November, 1945.

E. P. Griffin, Jr., has been released from military service and is spending terminal leave at Atkins.

Vincent O. Lesh has been released from military service and has returned to practice at Fayetteville.

Bruce Crow has been released from service and has returned to practice at Warren.

Major James M. Nisbett has been assigned as Senior Medical Officer to the Texarkana office, Veterans Administration.

George R. Steinkamp, Little Rock, now stationed in Germany with Headquarters, 9th Air Defense Command, has been promoted to major.

D. E. White has been elected a director of the El Dorado Kiwanis Club.

Roy I. Millard, Russellville, was elected vice-chairman of the Section on General Practice of the Southern Medical Association at the Cincinnati meeting.

Hugh J. Mayfield has been released from military service and has returned to practice at 209 Exchange Building, El Dorado.

Woodrow E. Phipps, Jr., has been released from military service and has returned to practice in North Little Rock.

Milton C. John has been released from military service and has returned to practice at Stuttgart.

W. B. Harrell, who has been on terminal leave following release from military service, has accepted appointment as Instructor, Department of Gynecology, University of Arkansas School of Medicine.

"Correlation Between Emotions and Carbohydrate Metabolism in Two Cases of Diabetes Mellitus" by L. N. Bollmeier, Hot Springs National Park, appeared in Psychosomatic Medicine, November, 1945.

A. M. Washburn has been released from military service and has returned to his former position of Director, Division of Communicable Diseases, Arkansas State Board of Health, Little Rock.

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No. 10

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Vol. XLII

LITTLE ROCK, ARKANSAS, MARCH, 1946

No. 10

CUTANEOUS BLASTOMYCOSIS*

By

R. H. RIGDON AND C. H. WINKLER, JR.
University of Arkansas School of Medicine
Little Rock

The frequency in which blastomycetes have been demonstrated in routine biopsies from ulcers in the skin of patients here at the University Hospital has been a stimulus to all of us to become cognizant of the diseases produced by the fungi. Blastomycosis is not the only fungus disease that is present in this section of the country. Cases of "Madura foot" have been reported from Texas (1). Several fatal cases of histoplasmosis have occurred in Tennessee (2), (3), (4), and at least one verified case has been reported from Arkansas (5). Blastomycotic infections have been reported from Missouri and other Southern states (6) (7). Coccidioidomycosis is present not only in the San Joaquin Valley of California but also cases have occurred in Kansas, Missouri, Nebraska and Texas (8). Actinomycosis frequency occurs in persons in the grain-raising areas of this country (9). Crone and associates (10) in 1937 reported a fatal case of torula infection in a native of Arkansas. Thirty-seven fatalities from fungus infections are recorded in the vital statistics of the state of Arkansas during the past 10 years (11).

Blastomycosis may occur either as a cutaneous or systemic infection. The cutaneous lesions usually begins as a single, papular swelling which is slightly tender; the surface soon ulcerates and allows an exudation of fluids and pus, which dries and forms a crust. The lesion progresses by marginal extension. The closely placed nodules coalesce producing an elevated, roughened, raspberry-like surface, with a multitude of yellow points representing the openings of miliary abscesses. The lesions in some instances are like large infected warts. Regional lymph nodes may

become involved and serve as a route for the systemic dissemination of the fungi. Occasion-



Fig. 1. A. The lesion on the face shows extensive scarring over the chin with wart-like proliferations over the left cheek. The surface of the lesion is covered with a dry crust beneath which is a purulent material.
B. The ulcer on the medial surface of the thigh is similar in its appearance to the lesion on the face.

ally a cutaneous blastomycotic lesion heals with a flattened dense scar (12).

The cutaneous lesions produced by blastomycetes occur more frequently on the face, neck and dorsal surfaces of the upper extremities (12). The infection may spread if the lesions are lo-

* Research paper No. 564, Journal Series, University of Arkansas School of Medicine.

* The serological studies were made by D. S. Martin at Duke University; we wish to acknowledge our appreciation for this cooperation.

cated in such areas of the body that contact occurs with adjacent skin surfaces, and it also may be spread to distant areas of the skin merely by scratching.

The following is a typical case of cutaneous blastomycosis:

Case Report: The patient is a colored male, 70 years of age, who was admitted to the hospi-



Fig. 2. A biopsy from the margin of the ulcer on the cheek shows intradermal abscesses and an infiltration of the subcutaneous tissue with leucocytes and mononuclear cells.

tal with an ulcerated area on the left side of the face and upon the medial surface of the left thigh. Both of these ulcers started as a "pimple" at approximately the same time, two years preceding hospitalization. The one on the face was cut while shaving and a yellow watery material began to drain from it within 24 to 48 hours. This lesion slowly progressed in size; the surfaces were dry and wart-like projections developed about the margin. Purulent material continued to exude from the ulcer, some of it becoming dry and crusty. The patient complained of itching of both face and thigh lesions. Scarring occurred in the center of the ulcer while the lesion continued to spread from the periphery. On admission the lesion involved the greater portion of the chin and left side of the face, as shown in figure 1A.

The lesion on the thigh developed similarly to the one on the face. When the subcutaneous lesion was the size of a "hen egg," the skin overlying it became necrotic and a yellow, watery, purulent material exuded from the mass. The spread continued peripherally, while the center became fibrosed. Sometimes this lesion would bleed, especially when any of the wart-like projections were removed. Purulent exudate has always been present. The appearance of the lesion when the patient was admitted is shown in figure 1B.

Physical Examination: The patient was poorly nourished. The superficial lymph nodes over the entire body were slightly enlarged, while those in the inguinal region measured 2-3 cm. in diameter. They were soft and tender. The liver extended about three fingers breadth below the right costal margin. No other significant physical findings were present.

Laboratory Examination: The white blood cell count was 9,600, red cell count 4.26 M and the hemoglobin 13.5 Gm. per 100. The specific gravity of the urine was 1.010. The blood pressure was 198 systolic and 120 diastolic. Kahn and Kolmer tests were positive.

Pathological Examination of Biopsy of Ulcers:

The squamous epithelium was proliferated and focal areas of leucocytes formed intradermal abscesses (Figs. 2 and 3A). Mononuclear cells infiltrated the subcutaneous tissue and in some areas there were epithelioid and giant cells (Fig. 3B). In the inflammatory tissue were doubly-contoured bodies consistent with blastomycetes (Fig. 4B).

Direct Examination of Ulcers: Material was obtained on a swab from the purulent matter and by scraping bits of tissue from the margin of the ulcers. A loopful of this material was put (into a drop of 10 per cent sodium hydroxide) on a glass slide and covered with a cover glass. Under the high-power of the microscope, cells 8 to 15 microns in diameter (i.e., one to two times the size of a red blood cell), with a doubly-contoured refractile membrane were demonstrated. Two of these blastomycetes are shown in figure 4B.

Skin Test: An intracutaneous injection of 0.1 cc. of blastomyces antigen was given on the volar surface of the forearm. An erythematous, indurated area 4.0 cm. in diameter was present at the site 24 hours after inoculation.

Complement Fixation Test: Serum from the patient gave a strongly positive complement fixation test.*

Differential Diagnosis: Cutaneous blastomycosis may simulate verrucous tuberculosis, epi-

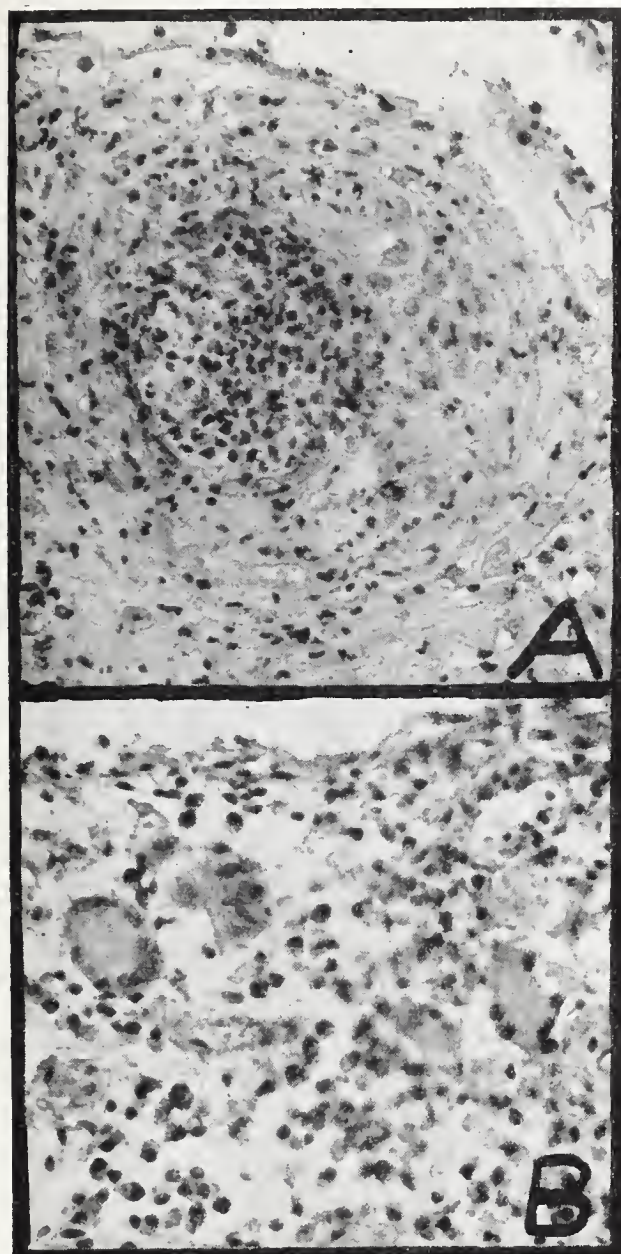


Fig. 3. A. An intradermal abscess in the tissue removed from the cheek lesion.

B. Giant cells and mononuclear cells infiltrate some of the subcutaneous tissue.

thelioma, bromoderma, iododerma, nodular ulcerative syphilids, granuloma inguinale and other granulomata. A positive serological reaction for syphilis, as found in this case, should not deter the alert physician from examining suspicious lesions for the presence of blastomycetic spores. Diagnostic delay may at any time lead to an unfortunate complication, i.e., generalization of the process.

Treatment: The oral administration of potassium iodide is accepted as the most reliable means of therapy in blastomycosis. However, in

many cases only temporary improvement has been obtained with this drug, and it sometimes has an adverse effect, resulting in the spread of the infectious process. Consistently good results have been obtained when iodide therapy is supplemented by the judicious use of X-ray, desensitization with vaccine, and suitable surgical procedures.

It is recommended that each patient be skin tested before any course of therapy is undertaken. The skin test is performed by the intracutaneous injection of 0.1 cc. of a standardized heat-killed vaccine,* the injection being made

* Obtained from Dr. N. F. Conant, Duke University.

on the volar surface of the forearm. Inspection at the end of twenty-four and forty-eight hour intervals should be made to determine the maximal reaction. Should the erythematous area be less than 1 cm. in diameter, it is safe to administer potassium iodide by the "rapid method" given below. If the reaction area is greater than 1 cm. in diameter, the patient is hypersensitive and should be desensitized before initiating treatment with iodides. Desensitization consists of the subcutaneous injection of gradually increasing amounts of vaccine, beginning with saline dilutions.

An estimate of the proper vaccine dilution for the first desensitization injection is made from the size of the reaction observed in the skin test. If the area of reaction to the skin test is about 2 cm. in diameter, the vaccine dilution should be 1:100 for the initial desensitization injection; if the area of reaction is as large as 3 cm., a 1:1000 dilution should be used; and if larger than 3 cm., it is considered unsafe to inject the vaccine unless diluted at least 1:10,000.

The initial dose of vaccine consists of 0.1 cc. of the indicated dilution injected subcutaneously, increasing by 0.1 cc. every other day or three times a week, until a dose of 1.0 cc. has been injected. This is then repeated, beginning with the next lowest dilution, until undiluted vaccine is administered. The dose must be kept below that producing either severe local or general reactions. If marked reactions do occur, and especially if the patient develops fever, vaccine should be discontinued for several days and then the injections resumed, but using a dose only one-tenth as strong as that producing the reaction. Occasionally some patients cannot tolerate vaccine dilutions beyond a certain limit, making it impossible to increase the dose without reaction. Complete desensitization is not to be expected and is not necessary. If the patient be skin tested after desensitization, the reaction

will be found to be markedly reduced from the previous skin test reaction, and sterile abscess formation does not occur.

Treatment with iodides may begin two weeks after vaccine desensitization treatment is underway, but the drug must be administered with caution and by the "slow method." Vaccine injections should be continued during the first few months of iodide treatment.

The drug of choice is potassium iodide (saturated solution), measured by drops and given orally in an ounce of water. In the "slow method," 3 drops are given three times daily after meals, increasing the dose 1 drop per day (not 1 drop per dose) until the patient is receiving 20 drops three times a day. The dose is then reduced to the starting point of 3 drops three times daily, increasing to the maximum of 20 drops three times per day.

In the "rapid method" of treatment the initial dose is 5 drops three times a day after meals, increasing 3 drops each day (1 drop per dose). Iodide may be stopped when the dosage reaches 20 drops three times daily, or it may be increased to as much as 100 drops three times a day. Should symptoms of iodism appear, treatment should be discontinued. When the symptoms have disappeared iodide is resumed, beginning with 5 drops three times a day. Some cases necessitate treatment, by either method, for months and in a few instances even years.

Sodium iodide may be substituted for potassium iodide, but it is usually administered intravenously in daily doses of 1 Gm. to supplement potassium iodide therapy.

Surgical procedures are of value where large foci of infection can be drained, but should be deferred, if possible, until the patient has been partially desensitized; without vaccine desensitization surgery is often followed by chronic ulcerative lesions.

X-ray therapy is a great aid in treating cutaneous lesions if the patient has been desensitized. The dose is 75 to 100 roentgen units, at weekly intervals, filtered through 1 mm. Al, with a total dosage not to exceed 1200 to 1500 roentgen units. Overtreatment is a common error. Sometimes patients are treated with X-ray and potassium iodide without desensitization and good results are obtained, however, desensitization is recommended (14).

Discussion

Gilchrist in 1894 first described blastomycosis in America (13). The disease frequently has been referred to as "Gilchrist's Disease." The specific

etiological agent is *Blastomyces dermatitidis*. This disease produces a chronic granulomatous lesion sometimes persisting for many years. Because of their chronicity the lesions in the skin are to be differentiated from other granulomatous lesions and from skin neoplasms. The disease may occur at any age; males are infected

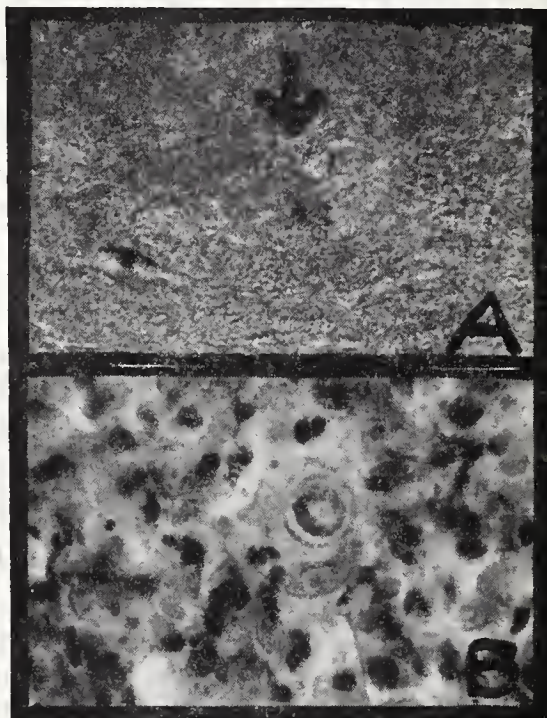


Fig. 4. A. Two blastomycetes are present at the point of the arrow. This is a fresh preparation of the scrapings removed from the margin of the lesion on the thigh.

B. A blastomycete is present in the center of this photograph. It shows the doubly-contoured, highly refractile membrane which is characteristic of this fungus.

more often than females. The lesions usually are not disabling unless they either occupy exceptionally large areas of the skin or become secondarily infected. Systemic blastomycosis may develop from an infection in the skin.

A history of the presence of a small subcutaneous nodule that ulcerates and progressively spreads to the adjacent tissues may be of some aid in the diagnosis of cutaneous blastomycosis. Wart-like proliferations at the periphery of the lesion likewise may be significant. Histological study of a biopsy taken from the margin of the ulcer usually will differentiate it from a malignancy. While the presence of intradermal abscesses is considered by some to be diagnostic, not all biopsies show these abscesses. The cellular reaction is not specific for fungal infections. The presence of giant cells should not confuse the process with either tuberculosis or syphilis. The reaction accompanying a secondary py-

ogenic infection is always confusing in the study of chronic granulomatous lesions. The demonstration of one or more cells with a doubly-contoured, highly refractile membrane within the inflammatory tissue may be considered as diagnostic of blastomycosis. The demonstration of budding cells, with a doubly-contoured, highly refractile membrane, in freshly prepared smears of the scrapings from these lesions also is diagnostic of the disease. Fungi in scrapings from the lesion may be cultured on special media. Recent adjuncts to the diagnosis of fungal infections, such as skin tests and the complement fixation reaction, should be used in suspected cases, although their diagnostic value is limited unless the tests are used by experienced investigators. Cutaneous blastomycosis rarely causes death.

The treatment of cutaneous blastomycosis has been described elsewhere in this paper. A more detailed discussion of the clinical problems of mycotic diseases, their diagnosis and treatment are given in a recent manual sponsored by the National Research Council. The data for this monograph have been compiled by five authorities at Duke University (14).

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MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

Undoubtedly, digitalis or digitalis-like drugs are employed in the therapeutics of heart conditions almost if not as frequently as any other drug. Unfortunately, it is sometimes prescribed when there is no real indication for its use. For that reason the Committee feels that the following summary of "The Treatment of Cardiac Failure With Digitalis Glycosides" by Harry Gold, M. D., of New York, and a summary entitled "Digitalis Intoxication" by Fredrick A. Willis, M. D., of Rochester, Minnesota, to appear in a subsequent issue, will prove to be instructive as well as interesting reading:

"The intensive search for the active principles of the digitalis group dates back to about the middle of the last century. Large numbers of purified principles have been isolated from the various plants of the digitalis series. Many of the purified materials are mixtures of glycosides rather than single principles. This applies to such preparations as digalen, digifolin, digitan, digilanid, and others. A few represent substantially pure principles.

"Qualitatively they all behave alike. Their therapeutic effects are indistinguishable from those of crude digitalis leaf. The indications are that the margin of safety between the amount required to produce the therapeutic effect and the amount which causes a toxic effect does not differ materially from one preparation to another. There are, however, quantitative differences from the pharmacological and clinical standpoints and these pertain to four points: (1) speed of development of action, (2) extent of absorption, (3) duration of action, and (4) potency.

Speed of Action

"When digitalis glycosides are injected intravenously there is a latent period before the effects on the heart occur. This latent period differs with different materials. It has nothing to do with the matter of absorption since the injection is intravenous. This problem has been studied in a series of patients with heart failure and auricular fibrillation. They were put to bed. The apical rate was counted several times during the day for many days until a constant control level was attained. A dose of a digitalis material

was then injected intravenously and the rate counted at intervals of five to ten minutes until the rate declined to the lowest level. The results of such studies, made with ouabain (crystalline strophanthin), cedilanid, digifolin, and digitoxin show that ouabain has the shortest latent period and develops its full effects more quickly than any of the other glycosides. The full effect of ouabain, as measured in this way, is attained in an average period of about two hours, in the case of digitoxin in an average period of about six hours, and between the two fall the curves for the other materials.

Extent of Absorption

"The glycosides of the digitalis series differ in their absorption from the gastro-intestinal tract. The ratio of the oral to the intravenous dose necessary to produce the same effect in patients may be taken as an index of the degree of absorption. This index is somewhat complicated by the factor of elimination, but since the absorption is usually a matter of hours and elimination a matter of days, the major component of the index is the absorption factor, and it serves the practical purpose of revealing how much more of the drug needs to be given by mouth than by vein for similar therapeutic effects.

"Several digitalis glycosides have been studied in this way. The patient with auricular fibrillation and heart failure is put to bed and the apical rate counted in the manner described above. One then determines how much of the drug is necessary in a single dose to produce the same degree of slowing once by oral administration and at another time by intravenous injection. If the doses are the same, a ratio of 1:1, it may be assumed that the drug is completely absorbed. If, on the other hand, the ratio turns out to be 5:1, it may be taken to indicate that only 20 per cent has been absorbed. The application of this test to several digitalis materials shows that, of a dose of digitalis leaf or the tincture of digitalis, only about 20 per cent of the active material is absorbed from the gastro-intestinal tract of man, only about 10 per cent in the case of cedilanid, only about 5 to 10 per cent in the case of glycosides of squills (urginin), about 20 per cent in the case of the purified mixture of glycosides (digifolin), but nearly 100 per cent in the case of glycoside, digitoxin. Complete absorption from the gastro-intestinal tract is a highly desirable property of a digitalis glycoside.

"In the case of ouabain (crystalline strophan-

thin), the absorption from the gastro-intestinal tract of man is so poor that its oral administration is excluded.

"Digilanid, a mixture of glycosides from digitalis lanata, has received some attention in the literature. Although strictly comparable tests have not been made, the report by Batterman, Holman and DeGraff indicates that it behaves like crude digitalis with an absorption index of about 5:1 or 20 per cent absorbed.

"Digoxin is a pure principle from digitalis lanata which has attracted considerable attention. It is significantly different from digitoxin, with which the name digoxin is often confused. There is some uncertainty concerning the degree of its absorption, and the fact that it is rapidly eliminated may introduce a complicating factor in the determination of the absorption index. A report by DeGraff and Batterman supplies data suggesting that only about 20 per cent is absorbed, although we have a few experiments which indicate that the absorption is higher. It is in need of further study.

Duration of Action

"In the type of experiments described above, the duration of action of several digitalis materials was determined. After a full digitalizing dose of the powdered leaves of digitalis, the effects gradually wear off and are virtually completely gone in a period of from two to three weeks. There are, to be sure, marked individual variations. The duration of action of digitoxin is practically the same as that of the powdered leaves of digitalis. The effects of a full intravenous dose of ouabain wear off in a period of from three to four days. The duration of action of cedilanid and digifolin lies between these two extremes. By this method the exact curve of action of digoxin has not been established but others have found it to be rapidly eliminated, and this is confirmed by some observations in our clinics in which it was found that about 40 per cent of the full digitalizing dose is required daily for maintenance.

Potency

"One way of viewing the potency of preparations of digitalis is in terms of the average dose lethal for cats, or the cat unit. Approximately 30 per cent more of the drug converts the value into the U.S.P. unit. For several of the glycosides in common use, the cat unit values are approximately as follows: ouabain, 0.1 mg.; cedilanid, 0.25 mg.; digoxin, 0.28 mg.; urginin, 0.3 mg.; digilanid, 0.33 mg.; digitoxin, 0.4 mg. There are

some differences in the values obtained by different workers and for different samples of the same materials. The cat unit, or U.S.P. unit, is of practical importance only in relation to the intravenous injection of the purified glycosides. A fairly high degree of digitalization results from an intravenous dose of 3 to 5 cat units of any of the foregoing materials, with the possible exception of digitoxin which produces about 30 per cent greater effect (for reasons involving a technical problem in assay). The same is true for such mixtures of glycosides as digifolin or digalen or any extract of digitalis.

"The cat unit, or U.S.P. unit, is, however, of no practical value as a guide to the clinical potency of the purified glycosides when administered orally. Here variations in absorption vitiates the potency relationships shown by intravenous comparisons. Thus, a daily oral dose of 30 cat units of ouabain produces no effects. The average oral digitalizing dose of many specimens of digitalis leaf is approximately 15 to 20 cat units, of digifolin about the same, of digiland about 20 cat units (Batterman, Holman and DeGraff), of cedilanid about 30 to 40 cat units, and of uarginin about 40 to 60 cat units. The average digitalizing dose of digoxin is stated as 19.5 cat units (DeGraff and Batterman) although my associates and I have some experiences indicating that this dose is too large. The oral digitalizing dose of digitoxin is only 3-4 cat units. Here, then, is a group of purified glycosides of the digitalis group which are used both orally and intravenously, cedilanid, digiland, digoxin, uarginin, and digitoxin; when given intravenously the strongest is less than twice as potent as the weakest. As indicated above, absorption accounts for the difference.

Treatment of Cardiac Failure

"The problems of parenteral and oral digitalization may be considered separately. All digitalis glycosides are irritant, much too painful for subcutaneous injection. They may be given intramuscularly, but even in that case pain and tenderness often result. The behavior of the glycosides after intramuscular injection has not been studied sufficiently. Some of our experiences indicate that absorption is irregular and on the average a somewhat larger dose is necessary than by intravenous injection. The choice of preparation for intravenous use is not a matter of great importance. As already stated, an intravenous injection of 3 to 5 cat units (or 2.2

to 3.8 U.S.P. units) of any of the glycosides mentioned above may be counted upon to produce a satisfactory degree of digitalization in the average patient with heart failure who has had little or no digitalis recently (ten days or longer). This dose often will produce the full therapeutic action, although in more tolerant individuals several additional doses of 1 cat unit may need to be given at intervals of four to six hours to complete the effects. Where the matter of an hour or two may be decisive, ouabain is preferable (0.3 to 0.5 mg.) since its full effects are, on the average, developed somewhat more quickly, within two hours in the case of ouabain as against four to six hours for other glycosides of the digitalis group. Individuals are not all the same in this respect and, in some cases, the glycosides may show no substantial difference in speed of action.

"The need for intravenous injection of digitalis is infrequent. It should be reserved for some cases of extreme urgency, as in pulmonary edema resulting from acute failure of the left ventricle, or for cases in which, because of coma, vomiting, or other special factors, the oral route is inaccessible.

"The rectal route in the case of the purified glycosides has not been studied sufficiently.

"For the routine treatment of cardiac failure, the oral is the route of choice, digitoxin (digitaline nativelle) is the glycoside of choice, and digitalization in a single dose the method of choice. Digitoxin is the only glycoside in common use which is practically completely absorbed from the gastro-intestinal tract. A given dose produces as much effect by mouth as by vein. Its duration of action is that of digitalis; so also, its minor toxic effects. The average full digitalizing dose is only 1.2 to 1.5 mg. In the case of most, if not all, the other glycosides in common use, the dose is larger, as much as 6 to 10 mg. of cedilanid and similar or larger doses of uarginin for similar therapeutic effects. Such amounts of the glycosides produce sufficient local gastric irritation to induce nausea and vomiting long before any considerable part of the drug is absorbed. The same is true of the 1.2 to 1.5 gram digitalizing dose of digitalis leaf. In order to avoid local gastric upsets, the full dose in these cases is divided into fractions given at intervals of six hours, thereby requiring forty-eight to seventy-two hours to induce the full effects. In the case of digitoxin, on the other hand, an experience with more than 1,000

patients indicates that the 1.2 mg. may be safely given at one time. Its full effects develop in from six to ten hours. The 1.2 mg. is the approximate average full digitalizing dose. A cumulative distribution curve of human susceptibility to digitalis has been prepared, which shows that this dose should produce full digitalization in about three-fourths of all cases. In a very small proportion, the effects are more intense than necessary. Minor toxic effects with this dose occur in less than one in fifty cases. A few patients require additional doses of 0.2 mg. at intervals of six hours. The average maintenance dose is 0.2 mg.; in the more susceptible patients, 0.1 mg. daily.

"The dose of 1.2 mg. of digitoxin given at one time followed by a daily dose of 0.2 mg. for maintenance has greatly simplified the problem of digitalization in the average patient with cardiac failure. Adjustments in this plan are made for those who have been receiving digitalis. The basis of the adjustment is the fact that digitoxin is 1,000 times as potent as the current U.S.P. digitalis by oral administration in man; hence, an allowance of 0.1 mg. of digitoxin for every 0.1 gm. of digitalis."

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The New Orleans Graduate Medical Assembly, ninth annual meeting, will be held in New Orleans April 1-4, at the Municipal Auditorium. The program will consist of lectures by sixteen outstanding guest speakers, clinics, symposia, clinico-pathologic conferences, round-table luncheon discussions and technical exhibits. Registration fee of \$10.00 covers all features, including three luncheons. Physicians who plan to attend are invited to register at once with the Secretary, Room 105, 1430 Tulane Avenue, New Orleans 13, Louisiana. Information regarding hotel reservations will be sent upon receipt of registration fee or by request.

Physician Wanted

I can offer a good general practitioner, who is interested in doing small town and country practice, the best proposition in the state. Write Box C—The Journal of the Arkansas Medical Society.

THE CONSTRUCTIVE PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION FOR THE IMPROVEMENT OF MEDICAL CARE

The Board of Trustees of the American Medical Association and the Council on Medical Service of the American Medical Association at a meeting just completed in Chicago have taken a long step toward protection of the American people against the costs of sickness through participation in a voluntary prepayment sickness plan now developed under the authority of the American Medical Association.

The fundamental step in the development of this plan was the establishment of standards of acceptance for medical care plans which have the approval of the Council on Medical Service of the American Medical Association. Any plan which meets the standards of the Council will be entitled to display the seal of acceptance of the American Medical Association on its policies and on all of its announcements and promotional material. In order to qualify for acceptance, the prepayment plan must have the approval of the state or county medical society in the area in which it operates. The medical profession in the area must assume responsibility for the medical services included in the benefits. Plans must provide free choice of a qualified doctor of medicine and maintain the personal, confidential relationship between patient and physician. The plans must be organized and operated to provide the greatest possible benefits in medical care to the subscriber.

Medical care plans may be in terms of either cash indemnity or service units, with the understanding that benefits paid in cash are to be used to assist in paying the costs incurred for medical service. The standards also include provisions relative to the actuarial data that are required, systems of accounting, supervision by appropriate state authorities and periodic checking and reporting of the progress of the plan to the Council.

Coincidentally with the announcement of these standards of acceptance, there was organized, as a voluntary federation, an organization known as Associated Medical Care Plans, Inc. This independent association will include as members all plans that meet the minimum standard of the Council on Medical Service of

the American Medical Association. The Associated Medical Care Plans will undertake to establish coordination and reciprocity among all of these plans so as to permit transference of subscribers from one plan to another and use of the benefits in any state in which a subscriber happens to be located. Under this method great industrial organizations with plants in various portions of the United States will be able to secure coverage for all of their employees. Moreover, it will be possible for the Veterans Administration, welfare and industrial groups as well as government agencies, to provide coverage for the people in any given area through a system of national enrollment. In addition, the Associated Medical Care Plans, Inc., will undertake research and the compilation of statistics on medical care, provide consultation and information services based on the records of existing plans and engage in a great campaign of public education as to the medical service plan movement under the auspices of state and county medical societies.

The Board of Trustees of the American Medical Association also announced the establishment under its Council on Medical Service of a Division of Prepayment Medical Care Plans with a director and a staff who will administer the activities of the Council on Medical Service related to the promotion and development of medical care plans in all of the states.

In announcing its proposals for a nation-wide provision of sickness insurance on a mutual non-profit basis, the Association through its President and the Board of Trustees authorizes the publication of its complete health program with the ten points, which include the development of services in the field of preventive medicine, maternal and child health, voluntary prepayment plans for protection against the costs of sickness, compensation for loss of wages due to illness, the care of the veteran and the development of a high standard of housing, nutrition, clothing and recreation. The American Medical Association last June, through its Board of Trustees and Council on Medical Service, announced a 14-point program to improve the health and medical care situation in the United States. In October, 1945, the interpretation of these 14 points and methods of implementation were adopted by the Council on Medical Service. In December, 1945, the House of Delegates approved the whole program, suggested its rearrangement and directed the Board of Trustees

to keep the program constantly up to date so that it will stay at least even with and, if possible, a step ahead of the needs of the public.

With this in mind the Board of Trustees has adopted a restatement of the 14-point program, which clarifies still further the position of the American Medical Association on some of these points and brings into the program more definitely such matters as maternal and child welfare, medical research, the medical care of the veteran and the part to be played by the voluntary health agencies.

This restatement follows:

National Health Program of the American Medical Association

1. The American Medical Association urges a minimum standard of nutrition, housing, clothing and recreation as fundamental to good health and as an objective to be achieved in any suitable health program. The responsibility for attainment of this standard should be placed as far as possible on the individual, but the application of community effort, compatible with the maintenance of free enterprise, should be encouraged with governmental aid where needed.

2. The provision of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs is recognized as essential in a health program. The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas shall control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered. Medical care to those unable to provide for themselves is best administered by local and private agencies with the aid of public funds when needed. This program for national health should include the administration of medical care including hospitalization to all those needing it but unable to pay, such medical care to be provided preferably by a physician of the patient's choice with funds provided by local agencies with the assistance of federal funds when necessary.

3. The procedures established by modern medicine for advice to the prospective mother and for adequate care in childbirth should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid

should be supplied with the funds administered through local or state agencies.

4. The child should have throughout infancy proper attention including scientific nutrition, immunization against preventable disease and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child care and infant welfare stations administered under local auspices with support by tax funds whenever the need can be shown.

5. The provision of health and diagnostic centers and hospitals necessary to community needs is an essential of good medical care. Such facilities are preferably supplied by local agencies, including the community, church and trade agencies which have been responsible for the fine development of facilities for medical care in most American communities up to this time. Where such facilities are unavailable and cannot be supplied through local or state agencies, the federal government may aid, preferably under a plan which requires that the need be shown and that the community prove its ability to maintain such institutions once they are established. (Hill-Burton bill).

6. A program for medical care within the American system of individual initiative and freedom of enterprise includes the establishment of voluntary nonprofit prepayment plans for the costs of hospitalization (such as the Blue Cross plans) and voluntary nonprofit prepayment plans for medical care (such as those developed by many state and county medical societies). The principles of such insurance contracts should be acceptable to the Council on Medical Service of the American Medical Association and to the authoritative bodies of state medical associations. The evolution of voluntary prepayment insurance against the costs of sickness admits also the utilization of private sickness insurance plans which comply with state regulatory statutes and meet the standards of the Council on Medical Service of the American Medical Association.

7. A program for national health should include the administration of medical care, including hospitalization, to all veterans, such medical care to be provided preferably by a physician of the veteran's choice with payment by the Veterans Administration through a plan mutually

agreed on between the state medical association and the Veterans Administration.

8. Research for the advancement of medical science is fundamental in any national health program. The inclusion of medical research in a National Science Foundation, such as proposed in pending federal legislation, is endorsed.

9. The services rendered by volunteer philanthropic health agencies such as the American Cancer Society, the National Tuberculosis Association, the National Foundation for Infantile Paralysis, Inc., and by philanthropic agencies such as the Commonwealth Fund and the Rockefeller Foundation, and similar bodies have been of vast benefit to the American people and are a natural outgrowth of the system of free enterprise and democracy that prevail in the United States. Their participation in a national health program should be encouraged and the growth of such agencies when properly administered should be commended.

10. Fundamental to the promotion of the public health and alleviation of illness are widespread education in the field of health and the widest possible dissemination of information regarding the prevention of disease and its treatment by authoritative agencies. Health education should be considered a necessary function of all departments of public health, medical associations and school authorities.

OBITUARY

BENJAMIN DANE LUCK, age 66, Pine Bluff, died January 23rd. Born in Columbia County, he attended Magnolia Academy, Ouachita College and graduated from Jefferson Medical College in 1903. His internship was served at Saint Vincent's Hospital, Birmingham, Alabama. In addition to his membership in the Jefferson County Medical Society which he had served as an officer, he was a member of the Arkansas Medical Society, a Fellow of the American Medical Association and of the International College of Surgeons, a member of the Masonic bodies including the Scottish Rite and the Shrine, a member and past-president of the Pine Bluff Rotary Club, a member of the Elks lodge and of the Methodist church and chairman of the Jefferson County Board of Health. Surviving relatives are his wife, three sons, one of whom, B. D. Luck, Jr., was

associated with him in practice, and two daughters.

ROBERT QUINCY PATTERSON, age 75 years, died at Little Rock January 23rd. A graduate of Vanderbilt University School of Medicine in 1900, he first practiced at Augusta and located in Little Rock for the practice of dermatology in 1919. He was a diplomate of the American Board of Dermatology and Syphilology, a fellow of the American Medical Association and an honorary member of the Pulaski County Medical Society and the Arkansas Medical Society. He had served as professor of dermatology and syphilology at the University of Arkansas School of Medicine until retirement from illness in 1945. He was a member of the various Masonic bodies and of the First Methodist church. Surviving relatives are four brothers, three foster sons and a foster daughter.

C. ALONZO HARDING, age 64, Ashdown, died January 29th. Born at Waco, Texas, he graduated from the College of Physicians and Surgeons, Dallas, in 1904 and had previously completed the course in pharmacy at the University of Ohio. Married to Miss Florine Campbell, August 4, 1910, he had practiced at Ashdown for the past twenty years. He was a member of the Presbyterian church and of the Masonic and Odd Fellow lodges. He had served his county medical society in the various offices and had represented it in the House of Delegates of the Arkansas Medical Society at several annual sessions.

CHARLES CLAY REED, age 72, Little Rock, died February 16th after a prolonged illness. Born in Evansville, Indiana, July 7, 1874, he came to Beebe with his family in 1884 and graduated from the University of Arkansas School of Medicine in 1906. He first practiced at Farrel where he was chief surgeon of the Farrel Lumber Company and moved to Little Rock in 1919. He married Miss Ruth N. Robinson, of Lonoke, August 13, 1904. He was a member of the Masonic bodies, the Arkansas Consistory, the Little Rock Lions Club, the Winfield Methodist church, an honorary member of the Pulaski County Medical Society and the Arkansas Medical Society and a fellow of the American Medical Association. Surviving are his wife, two daughters and three sons, one of whom, Dr. C. C. Reed, Jr., is in

the Army Medical Corps stationed at Camp Robinson.

CHARLES H. NIMS, age 75, died at his home in Hot Springs National Park, February 6th. Born in Lexington, Michigan, he graduated from the University of Michigan Medical School in 1897. Following service in World War I, he came to Hot Springs National Park and engaged in the practice of roentgenology. He was a member of the Garland County Medical Society, the Arkansas Medical Society, a fellow of the American Medical Association, a member of the Radiological Society of North America, a member of the Methodist church and a member of the Rotary Club. Surviving relatives are his wife, a son and two daughters.

EDWARD E. BARLOW, age 72, Dermott, died suddenly in a Memphis hospital February 6th. Born at Eaton, Illinois, he graduated from Memphis Hospital Medical College in 1902. He was an honorary member of the Arkansas Medical Society and served as president in 1930-31 and had been active in state and county society activities throughout his years of practice in Arkansas. He was a fellow of the American College of Surgeons and of the American Medical Association and was delegate from Arkansas to the House of Delegates of the American Medical Society and was delegate from Arkansas to the House of Delegates of the American Medical Association at the time of his death. He was a charter member and past-president of the Dermott Rotary Club, a 33rd degree Scottish Rite Mason, an elder in the Dermott Presbyterian church, a charter member of the Arkansas Economic Council, chairman of the Dermott Sewer Commission, past-president of the Dermott School Board, first secretary of the Dermott Chamber of Commerce and president of the Southeast Arkansas Highway Association. He founded the Barlow Clinic in 1935 with his son, Dr. Brian E. Barlow, and was a leader in building the Dermott Municipal Hospital. Surviving relatives are his wife, two sons, Dr. Brian E. Barlow, who was associated with him in practice, and Donald E., a senior in the University of Arkansas School of Medicine, and a sister.

FOR SALE—Hospital equipment, including Fischer 60-88 X-ray with tilt table and fluoroscope; Sanborn Metabolor; obstetric table; ultraviolet lamp, incubator, etc. Dr. Pierre Redman, Mena, Arkansas.

THE JOURNAL

OF THE
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W. R. BROOKSHER, M. D., Editor
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EDITORIAL

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

The Wagner-Murray-Dingell bill now pending in Congress is an amendment to Social Security legislation which will regiment 120 million people for medical service, will increase taxation and lower medical service and standards. It also opposes one of the rights of the Constitution, that of free enterprise.

This bill will deprive the public of certain privileges that they are entitled to such as good medical service and the personal relationship of physician and family.

The Committee on Medical Economics of the Arkansas Medical Society calls upon every member of the profession to write their Congressmen and Senators expressing their opposition.

We further urge you to educate the public in these matters.

H. E. Mobley, Chairman,
R. M. Blakely,
Roy I. Millard.

THE ANNUAL SESSION

The Seventieth Annual Session of the Society will be held at the Marion Hotel, Little Rock, April 15th, 16th and 17th, 1946. This will be a return to the usual three-day session which was omitted during the war period by restricting the meetings to two days and by suspension of meeting during 1945. The preliminary program is published in this issue and offers a scientific session of interest to all members. The Pulaski County Medical Society is engaged in an effort to make this "Victory" session a banner gathering, offering all of the usual incentives of good fellowship and instruction, together with the opportunity for meeting again the many members who were in military service and who, with but few exceptions, will have returned to civilian life by the date of the meeting. It is hoped that the greatest attendance ever will insure the success of the meeting. The advisability of making hotel room reservations at an early date is suggested.

EDITORIAL COMMENT

HONORARY MEMBERSHIPS

The attention of county medical societies is directed to the provisions of the Constitution relative to the election of members to honorary membership in the state society. To be so elected, members must have reached the age of 65 years, must have been in good standing for the preceding 15 consecutive years, must have been elected to honorary membership in their county society, must have paid the current year's membership assessment, i.e., for 1946, and must be nominated by their county society. Such nominations should reach the office of the state secretary in ample time for the records to be checked and the nominations prepared for action of the Council at the coming state meeting. Election is by the House of Delegates on nomination of the Council.

RANDOM THOUGHTS OF THE SECRETARY

January 25th. With nylon hose, maid service for a year, a refrigerator, numerous other items and \$13,500, Arkansas' Bartholmew is released from military service, a striking testimonial to hard work, diligence, perseverance, and a radio quiz—the American Way of Life.

January 30th. Women in lines two abreast for four blocks in each direction waiting for nylons must have given the morning's "separates" from Camp Chaffee an idea of the horrors of civilian life and perhaps stimulated recruiting.

February 7th. For the second time in these hectic years of traveling about, a hotel fails to honor our con-

firmed reservation, this time at 2:00 A.M. on a cold Chicago morning, the hotel having the benefit of this advertising—The Drake.

February 8th. With the state secretaries and editors this day, missing the most familiar face of Olin West, recuperating from pneumonia, but with plenty of fire left in our estimation after a telephone conversation and about ready to get back into the work. Astounded to see and hear Fishbein read from a manuscript, probably the second time since the AMA sent him out to that Chicago school years ago for his first public appearance. Tonight with the editors with some of the usual conflict of opinion and thence away to cheer enthusiastically while the Oklahoma Aggies defeat Depaul from Shanklin's good country.

February 9th. Continuing with the secretaries and editors having the feeling that a national medical prepayment plan is not yet ready but confident that there will be much of progress in voluntary plans as the months go by. About State Street and the loop in the afternoon where the same shortages in shirts and the like exist as in all towns. Tonight watching the vaudevillians, Olsen and Johnson, carry on in a magnified version of their old act, yet with mirth unrestricted.

February 10th. Attending the National Conference on Medical Service and finding Byron Robinson and Kosminsky likewise in attendance having been drawn to Chicago for other sessions. Happy over the cordiality of Jones' statement of the farmer's desires in medicine, not surprised over the expression from labor and unimpressed over capital's statement. And so away with Dick Graham on Braniff, an assurance of two hours good conversation into Kansas City.

February 11th. Home to enter into the activities of Scout Week, never before the event as we now find it under the youngster's tutelage and insistence.

February 12th. Crigler takes over as president of the county society and finds that the discussions which take place here require more administrative procedures than have perhaps been required in presiding over the Kiwanis Club and the Junior Chamber of Commerce. An added novelty, even for this county society, is the double introduction which Curtis, the guest speaker, receives.

February 16th. There's much of face-losing and face-saving in the Democratic party these days.

PROCEEDINGS OF SOCIETIES

Pulaski County Medical Society was addressed February 4th by the following returned medical officers on their medical and surgical experiences in different combat areas: R. J. Calcote (Pacific and South Pacific); A. M. Washburn (Africa and Italy); Harvey Shipp (Pacific and Atlantic); Ralph E. McLochlin (Atlantic); T. J. Raney (Aleutians and China), and H. M. Armstrong (Africa). The Society entertained at a dinner dance February 11th honoring the returned veteran members of the Society.

E. J. Easley, Secretary.

Randolph County Medical Society has elected the following officers: President, J. R. Loftis; Vice-president, R. O. Smith; Secretary-treasurer, M. A. Baltz; Delegate, W. E. Hamil, and Alternate, J. R. Loftis.

Crawford County Medical Society has elected the following officers: President, S. D. Kirkland; Vice-president, S. C. Grant; Secretary-treasurer, Riley Cowan; Delegate, S. C. Grant, and Alternate, O. J. Kirksey.

Independence County Medical Society has elected the following officers: President, V. D. McAdams, Cord; Vice-president, Rector Hooper, Batesville; Secretary-treasurer, Paul Gray, Batesville; Delegate, O. J. T. Johnston, Batesville, and Alternate, M. S. Craig, Batesville.

Pope County Medical Society has elected the following officers: President, Ellis Gardner; Vice-president, J. Arnold Henry; Secretary-treasurer, Brooks R. Teeter; Delegate, W. O. Young, Jr., and Alternate, J. Arnold Henry.

White County Medical Society has elected the following officers: President, W. R. Felts, Judsonia; Vice-president, A. J. Dunklin, Searcy; Secretary-treasurer, S. J. Allbright, Searcy; Delegate, M. C. Hawkins, Jr., Searcy, and Alternate, Porter R. Rodgers, Searcy.

Ashley County Medical Society has elected the following officers: President, D. V. Smith, Crossett; Secretary-treasurer, W. A. Regnier, Crossett; Delegate, D. V. Smith, and Alternate, W. A. Regnier.

Miller County Medical Society has elected the



following officers: President, R. W. Pickett; Vice-president, B. C. Middleton; Secretary-treasurer, Karlton H. Kemp, and Delegate, H. E. Murry.

Franklin County Medical Society has elected the following officers: President, W. C. Porter; Vice-president, E. W. Pillstrom; Secretary-treasurer, W. H. Gibbons; Delegate, E. W. Pillstrom, and Alternate, W. H. Bollinger.

Chicot County Medical Society has elected the following officers: President, B. C. Clark; Vice-president, W. A. Craig; Secretary-treasurer, M. K. Botoroff; Delegate, J. H. Burge, and Alternate, B. E. Barlow.

Sevier County Medical Society has elected the following officers: President, R. C. Dickinson; Vice-president, C. A. Archer; Secretary-treasurer, C. E. Kitchens; Delegate, R. C. Dickinson, and Alternate, C. E. Kitchens.

A. C. Curtis addressed the Sebastian County Medical Society February 12th on "Tuberculosis Control."

D. W. Goldstein, Secretary.

Fount Richardson addressed the Washington County Medical Society February 5th on "Naevi."

Ruth Ellis Lesh, Secretary.

Johnson County Medical Society has elected the following officers: President, Guy Shrigley; Vice-president, J. M. Kolb; Secretary-treasurer, G. R. Siegel, and Delegate, Geo. R. Hardgrave. The Society placed an advertisement in the local newspaper welcoming Drs. J. M. Kolb and Guy Shrigley back to practice after service in the military forces. The Society is also conducting a ten-week newspaper advertising campaign acquainting the public with the provisions of the Wagner-Murray-Dingell bill.

G. R. Siegel, Secretary.

Lee County Medical Society has elected the following officers: President, C. W. Chaffin; Secretary-treasurer, W. C. Hays, Jr., and Delegate, C. W. Chaffin.

The Ouachita County Medical Society was entertained by Dr. and Mrs. J. P. Clemens of

Stephens, Arkansas, Thursday evening, February 7, with a delightful dinner at their home. The program consisted of a talk on "Injuries to the Eye" by Dr. R. J. Calcote of Little Rock and a talk on "Carbuncle of the Kidney" by Dr. T. D. Brown of Little Rock.

R. B. Robins, Secretary.

Desha County Medical Society has elected the following officers: President, J. H. Hellums; Vice-president, Chas. G. Leverett; Secretary-treasurer, Goree Biscoe; Delegate, H. T. Smith.

The Craighead-Poinsett County Medical Society met in dinner session January 4th for the following program: "Our Clinical Teaching Program: Past, Present and What We Hope to Do," Byron L. Robinson, Little Rock, and "A General Discussion of the Thyroid," J. Harry Hayes, Little Rock.

J. H. McCurry, Secretary.

Greene County Medical Society has elected the following officers: President, Earle D. McKelvey; Vice-president, J. J. Hudgins; Secretary-treasurer, M. A. Kellett; Delegate, R. J. Haley, Jr., and Alternate, J. D. Blackwood.

Grant County Medical Society has elected the following officers: President, O. R. Kelly, and Secretary-treasurer, M. F. Kelly.

Union County Medical Society has elected the following officers: President, M. V. Russell; Vice-president, H. J. Mayfield; Secretary-treasurer, G. D. Murphy, Jr.; Delegates, E. J. Munn, A. D. Cathey, and Alternates, J. H. Pinson, D. E. White.

Lawrence County Medical Society has elected the following officers: President, J. B. Elders; Vice-president, E. J. Cruse; Secretary-treasurer, Chas. D. Tibbels, and Delegate, W. W. Hatcher.

Madison County Medical Society has elected the following officers: President, C. J. Martin, Huntsville, and Secretary-treasurer, Fred Youngblood, Huntsville.

Jefferson County Medical Society has elected the following officers: President, Allen R. Russell; vice-president, H. T. Capel, and secretary-treasurer, B. D. Luck, Jr.

PERSONALS AND NEWS ITEMS

Chas. P. Harris has been released from military service and has returned to practice at Jonesboro.

W. J. Butt has been released from military service and has returned to practice at Fayetteville.

C. A. Churchill has been released from military service and has returned to practice at Batesville.

C. A. Rosenbaum, Little Rock, recently took special work in peripheral vascular diseases at Massachusetts General Hospital and the Lahey Clinic, Boston. He also addressed the Mount Carmel Hospital Staff, Detroit, during January on peripheral vascular diseases.

D. R. Hardeman has been released from military service and has returned to practice with offices in the Boyle Building, Little Rock.

J. R. Sloan has moved from Garner to Beebe.

Drs. Murphey and Louise Henry, Fort Smith, took special work with Chevalier Jackson in Philadelphia during February.

R. E. Smallwood has been released from military service and has been appointed director, Health Unit No. 3, with office at Arkadelphia.

H. H. Holt has been released from military service and has returned to practice at Nashville.

T. D. Brown has been released from military service and has returned to practice in Little Rock.

Glenn G. Hairston has been released from military service and has returned to practice at Prescott.

W. H. Calaway has been released from military service and has returned to practice at Batesville.

Byron L. Robinson, Little Rock, attended the sessions of the Council on Medical Education and Hospitals of the American Medical Association in Chicago during February.

Paul T. Hudgins, Searcy, has been called to

active duty as Lieutenant, Medical Corps, Army of the United States, and assigned to the Army Air Force, Greensboro, North Carolina.

L. J. Kosminsky, Texarkana, attended the meeting of the Federation of State Medical Examining Boards in Chicago during February.

MARRIED—Lt. Comdr. Howard C. Story and Dr. Martha Sue Lewandowski at Little Rock January 13th.

Earle D. McKelvey, Paragould, and Ralph M. Sloan, Jonesboro, addressed the Eastern Arkansas Council, Boy Scouts of America, at Blytheville January 24th.

Jack R. Ellis, Hot Springs National Park, has been released from military service and is now at the McCalip-ly Hospital, Weslaco, Texas.

Ewing M. Nixon has been released from military service and has returned to practice with Jos. F. Shuffield at 1008 Donaghey Building, Little Rock.

John W. Dorman has been released from military service and has joined Drs. Sisco and Sisco in practice at Springdale.

Barney P. Briggs has been released from military service and has returned to practice with offices at 831 Donaghey Building, Little Rock.

John P. Wood, formerly a resident at Baptist State Hospital, Little Rock, is now located at Corning.

Samuel B. Thompson has been released from military service and is spending terminal leave with his parents, Dr. and Mrs. S. A. Thompson, Camden.

Paul L. Mahoney and O. C. Melson, Little Rock, visited the Mayo Clinic during February.

W. E. Berry, formerly of Truman, has been released from military service and upon completion of postgraduate work in the University of Tennessee will locate at Jonesboro.

J. P. Clemens has been elected a director of the Stephens Security Bank.

Philip T. Cullen has been released from military service and has returned to practice with

L. F. Barrier with offices at 727 Donaghey Building, Little Rock.

A. S. J. Clarke, Fort Smith, took special work under W. G. Stuck at San Antonio during February.

Dr. and Mrs. L. J. Kosminsky, Texarkana, spent a recent vacation at Miami, Florida.

Louis K. Hundley has located at 509 National Building, Pine Bluff, for practice in eye, ear, nose and throat.

Guy P. Shrigley has been released from military service and has returned to practice at Clarksville.

John W. Sneed has been released from military service and has located at Conway for practice.

J. E. Stevenson, Fort Smith, attended the Golden Gloves tournament in Kansas City in February.

B. V. Powell has been elected sergeant-at-arms of the Camden Post, Veterans of Foreign Wars.

C. C. Hanchey has been released from military service and is spending terminal leave at Wilmot.

Lee A. Dean has been released from military service and is now associated with Guy Hodges in practice at Rogers.

Dr. and Mrs. D. W. Goldstein, Fort Smith, spent a recent vacation in Cleveland, Ohio.

A. H. Maddox, Elaine, has been released from military service and is taking postgraduate work at the University of Tennessee.

James F. Lewis, Fayetteville, has been released from military service and will be associated with James T. Doster, Columbus, Mississippi, on expiration of his terminal leave.

J. B. Elders has been released from military service and has returned to practice at Walnut Ridge.

T. H. Jones has been elected surgeon of the Waldo post of the American Legion.

A. M. Elton has been elected president of the First National Bank of Newport.

Dan H. Autry has been released from military service and is spending terminal leave in Little Rock.

Gus W. Jones, El Dorado, has been released from military service and is taking special work at Charity Hospital, New Orleans.

Dr. and Mrs. C. G. Hinkle, Batesville, spent a recent vacation in Mexico City.

Hoyt R. Allen, Little Rock, and D. B. Stough, Hot Springs, attended the Mid-West Branch of the American Proctologic Society meeting in Denver during February.

Robert L. Turnbow has been released from military service and is taking special work at Saint Vincent's Infirmary, Little Rock.

Hunter C. Sims has been released from military service and has returned to practice at Blytheville.

Ross Bizzell has been released from military service and has returned to practice with offices at 217 Exchange Building, Little Rock.

J. H. McCurry, Cash, has recently been a patient at the Methodist Hospital, Hot Springs National Park.

Robert G. Young, formerly of Little Rock, has been released from military service and has located at Marion, Indiana.

James H. Mosley has been released from military service and is located at Monticello.

H. H. Atkinson has been released from military service and is now associated with E. E. Estes in practice at Fordyce.

W. W. Johnston has been released from military service and has been appointed Director, District Health Unit No. 4, Arkansas State Board of Health, Conway, Arkansas.

Thomas K. Mahan, Blytheville, is taking special work in radiology with Drs. Davis and Gilmore in Chicago.

PRELIMINARY PROGRAM AND ANNOUNCEMENTS

Seventieth Annual Session of the ARKANSAS MEDICAL SOCIETY

Little Rock

April 15, 16, 17, 1946

HEADQUARTERS—HOTEL MARION

OFFICERS

C. A. ARCHER, President, DeQueen
H. KING WADE, President-elect, Hot Springs
R. C. DICKINSON, 1st Vice-President, Horatio
D. L. OWENS, 2nd Vice-President, Harrison
FRED HAMES, 3rd Vice-President, Pine Bluff
PAUL L. MAHONEY, Treasurer, Little Rock
W. R. BROOKSHER, Secretary, Fort Smith

COUNCILORS AND COUNCILOR DISTRICTS

S. A. THOMPSON, Chairman, Camden
First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. P. W. Lutterloh, Jonesboro. Term of office expires 1947.
Second District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. L. T. Evans, Batesville. Term of office expires 1946.
Third District—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, Saint Francis and Woodruff counties. J. O. Rush, Forrest City. Term of office expires 1947.
Fourth District—Ashley, Bradley, Chicot, Cleveland, DeSha, Drew, Jefferson and Lincoln counties. M. C. Crandall, Wilmot. Term of office expires 1946.
Fifth District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. S. A. Thompson, Camden. Term of office expires 1947.
Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. C. E. Kitchens, DeQueen. Term of office expires 1946.
Seventh District—Clark, Garland, Hot Spring, Montgomery and Saline counties. L. G. Martin, Hot Springs National Park. Term of office expires 1947.
Eighth District—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. M. J. Kilbury, Little Rock. Term of office expires 1946.
Ninth District—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. J. G. Gladden, Harrison. Term of office expires 1947.
Tenth District—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Earle H. Hunt, Clarksville. Term of office expires 1946.

EX-OFFICIO COUNCILORS

C. A. ARCHER, DeQueen, President
H. KING WADE, Hot Springs, President-Elect
PAUL L. MAHONEY, Little Rock, Treasurer
W. R. BROOKSHER, Fort Smith, Secretary

COMMITTEES

(Appointments expire with the annual session of the year indicated.)

SCIENTIFIC WORK—Hoyt R. Allen, Little Rock, Chairman (1948); C. S. Moss, Hot Springs National Park

(1947); M. C. Hawkins, Jr., Searcy (1946); W. R. Brooksher, Fort Smith (ex-officio).

MEDICAL LEGISLATION—Jos. F. Shuffield, Little Rock, Chairman (1946); W. H. Toland, Nashville (1948); M. L. Norwood, Lockesburg (1949); W. K. Smith, Hot Springs National Park (1947).

MEDICAL EDUCATION AND HOSPITALS—W. C. Langston, Little Rock, Chairman (1946); J. K. Walker, Pine Bluff (1947); A. S. Buchanan, Prescott (1948).

HEALTH AND PUBLIC INSTRUCTION—T. T. Ross, Little Rock, Chairman (1947); W. B. Grayson, Little Rock (1946); Byron L. Robinson, Little Rock (1948); Ross Fowler, Harrison (1947).

MEDICAL ECONOMICS—H. E. Mobley, Morrilton, Chairman (1948); Roy I. Millard, Russellville (1947); L. T. Evans, Batesville (1946); M. L. Norwood, Lockesburg (1948).

SCIENTIFIC EXHIBIT—Jeff Banks, Little Rock, Chairman (1948); Paul C. Eschweiler, Little Rock (1947); Ralph E. Crigler, Fort Smith (1947); W. E. Gray, Hot Springs National Park (1946).

NECROLOGY—C. W. Dixon, Gould, Chairman (1947); W. W. Verser, Harrisburg (1946); Fred Youngblood, Huntsville (1948); Robert Caldwell, Little Rock (1946).

CANCER CONTROL—Fred Hames, Pine Bluff, Chairman (1948); I. F. Jones, Fort Smith (1947); R. H. Willett, Jonesboro (1947); D. A. Rhinehart, Little Rock (1947); W. Decker Smith, Texarkana (1946); S. A. Drennen, Stuttgart (1946); C. A. Archer, Jr., Conway (1948).

MATERNAL AND CHILD WELFARE—I. F. Jones, Fort Smith, Chairman; Don Smith, Hope; *J. S. Wilson, Monticello; L. A. Longino, Magnolia; W. B. Reasons, Hermitage.

HEART—Chas. T. Chamberlain, Fort Smith, Chairman; G. W. Parson, Texarkana; A. A. Blair, Fort Smith.

CONTROL OF SYPHILIS—D. W. Goldstein, Fort Smith; L. G. Martin, Hot Springs National Park; W. K. Smith, Hot Springs National Park.

POST-GRADUATE STUDY—D. A. Rhinehart, Little Rock, Chairman; B. E. Barlow, Dermott; E. D. McKelvey, Paragould; F. Walter Carruthers, Little Rock; A. D. Cathey, El Dorado; L. M. Lile, Hope; Guy Hodges, Rogers.

AUXILIARY—Jos. F. Shuffield, Little Rock, Chairman; A. C. Shipp, Little Rock; H. Fay H. Jones, Little Rock; H. T. Smith, McGehee; H. King Wade, Hot Springs National Park.

STUDY OF MIDWIFERY—J. P. Price, Jr., Monticello; W. H. Martin, Holly Grove; T. H. Jones, Waldo.

LIAISON WITH THE ARKANSAS TUBERCULOSIS ASSOCIATION—A. C. Shipp, Little Rock, Chairman; J. D. Riley, State Sanatorium; J. F. Williams, Texarkana; S. C. Fulmer, Little Rock; E. A. Callahan, Carlisle; R. C. Dickinson, Horatio.

INDUSTRIAL HEALTH—A. D. Cathey, El Dorado, Chairman; D. V. Smith, Crossett; J. B. Jameson, Camden; W. V. Newman, Little Rock.

MENTAL HYGIENE—Geo. B. Fletcher, Hot Springs National Park, Chairman; A. C. Kolb, Little Rock; Pat Murphey, Little Rock; Elizabeth Fletcher, Little Rock; R. F. Darnall, Little Rock.

ADVISORY TO STATE INSTITUTIONS—R. B. Robins, Camden, Chairman; J. B. Jameson, Camden; Jos. F. Shuffield, Little Rock; L. J. Harrell, Prescott.

MEDICAL SERVICE AND PUBLIC RELATIONS—H. A.

Higgins, Little Rock, Chairman; P. W. Lutterloh, Jonesboro; A. G. Cazort, Little Rock; J. F. John, Eureka Springs.

* Deceased.

ANNOUNCEMENTS

REGISTRATION

The registration desk will be located in the Marion Hotel and will be open from 8:00 A. M. to 4:00 P. M. Monday, April 15th and April 16th, and from 8:00 A. M. to 2:00 P. M., Wednesday, April 17th, and from 3:00 P. M. to 5:00 P. M., Sunday, April 14th. Members of the Pulaski County Medical Society are requested to register on Sunday afternoon, April 14th, to avoid congestion on the opening day of the session. Delegates are requested to register as early as possible, presenting credentials at the time of registration. Members and visitors are required to register as admission to all sessions will be by badge. Bring your 1946 membership card to facilitate registration. Members of the American Medical Association from any state may register as guests.

MEETINGS OF THE COUNCIL

The Council of the Arkansas Medical Society, including the Past-Presidents, will meet at noon, April 15th, 16th and 17th, in Room 207, Marion Hotel, immediately after adjournment of the morning session.

PAST-PRESIDENTS' BREAKFAST

The Past-Presidents of the Society will convene in their annual breakfast session, Wednesday, April 17th, in Room 207, Marion Hotel, at 7:30 A. M.

PROGRAM HOUSE OF DELEGATES

First Meeting

Monday Morning, April 15th, 9:00 A. M.

Presiding, C. A. Archer, President

Calling meeting to order.

Roll Call of Delegates.

Report of Credentials Committee.

Introduction of Fraternal Delegates.

Adoption of Minutes of the Sixty-ninth Annual Session, published in the June, 1944, issue of The Journal of the Arkansas Medical Society. (Minutes of the Council meeting, April 22, 1945, held in lieu of the 1945 annual session, will be presented for adoption by the Council.)

Appointment of the Reference Committee.

President's Address to the House of Delegates.

Report of Committees

(Limited to ten minutes by the House of Delegates, 1942 session.)

Arrangements—J. Harry Hayes, Chairman

Scientific Work—Hoyt R. Allen, Chairman

Medical Legislation—Jos. F. Shuffield, Chairman

Medical Education and Hospitals—W. C. Langston, Chairman

Health and Public Instruction—T. T. Ross, Chairman

Medical Economics—H. E. Mobley, Chairman

Scientific Exhibit—Jeff Banks, Chairman

Necrology—C. W. Dixon, Chairman

Cancer Control—Fred Hames, Chairman

Heart—Chas. T. Chamberlain, Chairman

Study of Midwifery—J. G. Price, Chairman

Maternal and Child Welfare—I. F. Jones, Chairman

Postgraduate Study—D. A. Rhinehart, Chairman

Auxiliary—Jos. F. Shuffield, Chairman

Control of Syphilis—D. W. Goldstein, Chairman

Liaison with the Arkansas Tuberculosis Association—A. C. Shipp, Chairman

Industrial Health—A. D. Cathey, Chairman

Mental Hygiene—Geo. B. Fletcher, Chairman

Medical Service and Public Relations—H. A. Higgins, Chairman

Advisory Committee to State Institutions—R. B. Robins, Chairman

Report of the State Medical Board of the Arkansas Medical Society—L. J. Kosminsky, Secretary

Report of the Arkansas State Cancer Commission—C. A. Rosenbaum, Secretary

Report of Delegates to the American Medical Association

Report of the Council—S. A. Thompson, Chairman

Report of Treasurer—Paul L. Mahoney (submitted by R. J. Calcote, acting treasurer)

Report of the Secretary—W. R. Brooksher

Report of Counsel—Peter A. Deisch

Report of Fraternal Delegates

New Business

PROPOSED AMENDMENTS TO BY-LAWS

The following amendment to the By-Laws of the Society proposed at the 1944 annual session has been published in the January and February, 1945, issues of The Journal of the Arkansas Medical Society, and will be acted upon at the 1946 session of the Society:

"Resolved, that the By-Laws of the Arkansas Medical Society be amended, substituting the following (Chapter I, Section 4):

"An active member who shall have attained his eightieth year and shall have been a member of his county medical society in Arkansas or elsewhere in the United States continuously since beginning the practice of medicine, or who for fifty years shall have been continuously a member of his county medical society in Arkansas or elsewhere in the United States, shall, upon establishing the above facts to the satisfaction of his county medical society, and upon the recommendation of such society, be granted the status of a life member. Such member shall enjoy full membership privileges and shall be exempt from the payment of further dues or assessments. An active member in good standing in his county society may, upon the recommendation of such society, be granted affiliate membership with full voting and other privileges where one or more of the following conditions exist: retirement from active practice, physical or other disability of a character preventing the practice of medicine, a serious and prolonged illness, or financial reverses. Affiliate membership shall be on an annual basis only and a member must be recommended each year for such special status by the secretary and president of his county medical society following a review and reassessment of his particular situation. An affiliate member shall enjoy full membership privileges and shall be exempt from the payment of dues and assessments during the year in which he is granted such status, and a certificate of membership shall be issued to him for such year."

SELECTION OF THE NOMINATING COMMITTEE Scientific Session

Monday Afternoon, April 16th, 1:30 P. M.

Presiding, C. A. Archer, President

Invocation

WELCOME TO THE CITY OF LITTLE ROCK—Hon. Dan W. Sprick, Mayor

ADDRESS OF WELCOME—Hoyt R. Allen, President, Pulaski County Medical Society

RESPONSE TO THE ADDRESS OF WELCOME—Fount Richardson, Fayetteville

PRESIDENT'S ADDRESS

"THE PHYSICIAN'S RESPONSIBILITY IN VENEREAL DISEASE CONTROL," D. W. Goldstein, Fort Smith

"SURGICAL EXPERIENCE WITH VASCULAR DISEASES OF THE LOWER EXTREMITIES" (lantern demonstration), Howard Mahorner, New Orleans, Louisiana

"FOOT DISABILITIES," F. Walter Carruthers, Little Rock

"WHAT IS WRONG WITH THE DYSPYPTIC WHOSE FINDINGS ARE ALL NEGATIVE," Walter C. Alvarez, Rochester, Minnesota

"X-RAY TREATMENTS IN COMMON MINOR AILMENTS," D. A. Rhinehart, Little Rock

General Session

Monday, April 15th, 8:30 P. M.

Hotel Marion

President C. A. Archer, Presiding

"THE DEVELOPMENT OF PREPAID MEDICAL SERVICE IN THE UNITED STATES," Lee De Cady, Saint Louis, Missouri

Scientific Session

Tuesday, April 16th, 9:00 A. M.

"A REVIEW OF THE SURGICAL COMPLICATIONS OF AMEBIASIS," D. B. Stough, Hot Springs National Park

"MANAGEMENT OF SURGICAL LESIONS OF THE RECTOSIGMOID REGION (lantern demonstration), Louis P. Good, Texarkana

"TRENDS IN TUBERCULOSIS CONTROL PROCEDURES," Herbert R. Edwards, New York, N. Y.

"TUBERCULOSIS CONTROL ACTIVITIES OF THE ARKANSAS STATE BOARD OF HEALTH," A. C. Curtis, Little Rock

"PITUITARY-OVARIAN RELATIONSHIP," Jos. H. Sanderlin and William B. Harrell, Little Rock

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Room 212, Hotel Marion

Chairman—Raymond C. Cook, Little Rock

Secretary—K. W. Cosgrove, Little Rock

"USE OF RADIUM IN EUSTACHIAN TUBAL OBSTRUCTION," John W. Smith, Little Rock

"NASAL PLASTICS" Ellery C. Gay, Little Rock

"DETACHED RETINA," W. R. Buffington, New Orleans
Program to be followed by luncheon at 12:30 P. M. with round table discussion and election of officers.

Memorial Services

Tuesday, April 16th, 11:30 A. M.

President C. A. Archer, Presiding

Invocation

Musical Selection

Reading Names of Deceased Auxiliary Members

Address—C. W. Dixon, Chairman, Committee on Necrology, Gould

Musical Selection

Benediction

IN MEMORIAM

George W. Fletcher, Montrose, May 23, 1944

Walter G. Allison, Hope, May 24, 1944

Elbert L. Watson, Newport, June 3, 1944

Milton C. John, Stuttgart, June 9, 1944

James L. Merrell, Walnut Ridge, June 12, 1944

Jesse A. King, Elaine, August 7, 1944

William M. Kober, Little Rock, August 29, 1944

Charles N. Martin, Warren, September 7, 1944

Burtrum L. Ware, Fort Smith, October 12, 1944

Edmond W. Wood, Marshall, October 20, 1944

Charles S. Means, Fort Smith, November 21, 1944

George L. Henderson, Conway, November 23, 1944

Clyde L. McNeil, Rogers, November 24, 1944

Nall C. McCown, Forrest City, November 25, 1944

Hira C. Baker, Jr., Garfield, December 18, 1944

Junius Ruth, Rison, January 6, 1945

Madeline M. Melson, Little Rock, January 12, 1945

Augustus G. Lee, Texarkana, January 17, 1945

Fergus O. Mahony, El Dorado, February 6, 1945

Sidney J. Wolferman, Fort Smith, February 18, 1945

Clib B. May, Little Rock, February 23, 1945

H. D. Robinson, Manila, February 25, 1945

William C. King, Helena, March 27, 1945

George D. Counts, Wesley, April 18, 1945

Norris C. Hodge, Marianna, April 21, 1945

William T. Thorn, Marked Tree, May 1, 1945

Eugene A. Callahan, Carlisle, May 29, 1945

William T. Bradley, Blackton, May 30, 1945

Clyde B. Callen, Fayetteville, June 8, 1945

William W. Ward, Alexander, June 18, 1945

James C. Cunningham, Little Rock, June 18, 1945

Lee O. Greene, Pea Ridge, July 4, 1945

Amos E. Robinson, Leachville, July 5, 1945

Albert S. J. Collins, Monticello, July 27, 1945

Alvin B. Caldwell, Forrest City, July 28, 1945

Wallace L. Brittain, Conway, September 4, 1945

Woodye A. Winter, Widener, September 29, 1945

James W. Sexton, Dover, October 4, 1945

Marion B. Leverett, McGehee, October 19, 1945

James T. Word, Sweet Home, December 1, 1945

Edward C. McDaniel, Tyronza, December 4, 1945

Bert B. Bruce, Alma, December 13, 1945

John S. Wilson, Monticello, January 7, 1946

Benjamin H. Hawkins, Mena, January 13, 1946

Robert Q. Patterson, Little Rock, January 23, 1946

C. Alonzo Harding, Ashdown, January 29, 1946

Edward E. Barlow, Dermott, February 6, 1946

Charles H. Nims, Hot Springs, February 6, 1946

Charles C. Reed, Sr., Little Rock, February 16, 1946

Raymond W. Whittier, Little Rock, March 1, 1946

Scientific Session

Tuesday, April 16, 1:30 P. M.

"INJURIES INVOLVING THE ACCESSORY NASAL SINUSES," Ellery C. Gay, Little Rock

"CHANGES IN THE OCULAR FUNDUS DUE TO VASCULAR DISEASE," W. R. Buffington, New Orleans

"DIAGNOSTIC ASPECTS OF RUPTURED INTERVERTEBRAL DISKS," Jos. F. Shuffield and Robert Watson, Little Rock

"LAY CANCER EDUCATION AND THE PHYSICIAN," Mr. George B. Larson, Chicago

"CARCINOMA OF THE THYROID," J. Harry Hayes, Little Rock

Tuesday, April 16th

Hotel Marion

7:00 P. M. Social Hour—Herman Kahn Room, Mezzanine Floor—Pulaski County Medical Society, hosts

8:00 P. M. Banquet—Ball Room

Dancing

(Banquet tickets must be purchased at registration desk prior to noon, Tuesday, April 16th.)

Scientific Session

Wednesday, April 17th, 9:00 A. M.

- "CONTROL OF BLEEDING IN PELVIC CANCER," Fred Hames, Pine Bluff
 "OBSERVATIONS ON EARLY AMBULATION FOLLOWING SURGICAL PROCEDURES," Henry G. Hollenberg, Little Rock
 "SURGICAL TREATMENT OF PARKINSON'S DISEASE," Rowland M. Klemme, Saint Louis, Missouri
 "THE MICHIGAN STATE MEDICAL SOCIETY'S PLAN FOR PROVIDING PRACTICE ARRANGEMENTS WITH BENEFICIARIES OF THE VETERANS' ADMINISTRATION," Hardy A. Kemp, Detroit, Michigan

HOUSE DELEGATES**Final Session**

Wednesday, April 17th, 1:30 P. M.

President C. A. Archer, Presiding

- Calling meeting to order.
 Roll Call.
 Report of Nominating Committee.
 Election of Officers:
 President-Elect
 First Vice-president
 Second Vice-president
 Third Vice-president
 Treasurer
 Secretary
 Councilors from the Second, Fourth, Sixth, Eighth and Tenth districts.
 Delegate to the American Medical Association
 Alternate to the American Medical Association
 Report of the Reference Committee.
 Report of Committees.
 New Business.
 Adjournment.

General Session

Wednesday, April 17th

(Immediately following adjournment of the House of Delegates.)

President C. A. Archer, Presiding

- Presentation of President H. King Wade.
 Presentation of the President-Elect.
 New Business.
 Selection of the place of next meeting.
 Adjournment Sine Die.

EXCERPTS FROM CONSTITUTION AND BY-LAWS

CHAPTER X.

Section 1. No address or paper before the Society, except those of the president and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak longer than five minutes nor more than once on any subject, except by unanimous consent.

Section 2. All papers read before the Society * * * shall become its property. Each paper will be deposited with the secretary when read.

PRELIMINARY PROGRAM**TWENTY-SECOND ANNUAL SESSION****WOMAN'S AUXILIARY**

TO THE

ARKANSAS MEDICAL SOCIETY

ALBERT PIKE HOTEL, LITTLE ROCK

APRIL 15, 16 AND 17, 1946

HONOR GUEST OF THE AUXILIARY

Mrs. Arthur A. Herold, Shreveport, Louisiana, National Constitutional Secretary of the Auxiliary to the American Medical Association.

OFFICERS

- PRESIDENT—Mrs. E. L. Thompson, Hot Springs.
 PRESIDENT-ELECT—Mrs. Fred Hames, Pine Bluff.
 FIRST VICE-PRESIDENT—Mrs. W. J. Hunt, Warren.
 SECOND VICE-PRESIDENT—Mrs. R. C. Dickinson, Horatio.
 THIRD VICE-PRESIDENT—Mrs. Ulys Jackson, Harrison.
 FOURTH VICE-PRESIDENT—Mrs. L. H. McDaniel.
 SECRETARY—Mrs. H. K. Wright, Hot Springs.
 TREASURER—Mrs. J. P. Price, Monticello.
 PUBLICITY SECRETARY—Mrs. A. G. Lee, Texarkana.
 HISTORIAN—Mrs. C. W. Garrison, Little Rock.
 PARLIAMENTARIAN—Mrs. H. King Wade, Hot Springs.
 POET LAUREATE—Mrs. George B. Fletcher, Hot Springs.

ADVISORY BOARD

- Dr. Joe F. Shuffield, Little Rock.
 Dr. H. Fay H. Jones, Little Rock.
 Dr. H. King Wade, Hot Springs.
 Dr. H. T. Smith, McGehee.
 Dr. A. C. Shipp, Little Rock.

COUNCILORS

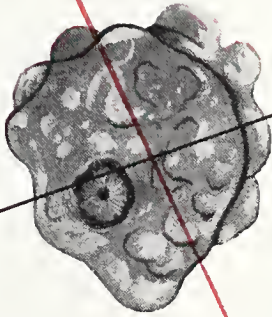
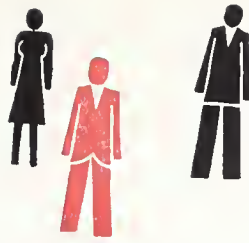
- Mrs. Alfred Hathcock, Fayetteville.
 Mrs. Calvin A. Churchill, Batesville.
 Mrs. L. G. Fincher, El Dorado.
 Mrs. L. J. Kosminsky, Texarkana.
 Mrs. A. C. Shipp, Little Rock.

COMMITTEE CHAIRMEN

1945-1946

- ORGANIZATION—Mrs. W. J. Hunt, Warren.
 EDUCATION AND PUBLIC HEALTH—Mrs. R. C. Dickinson, Horatio.
 HYGEIA—Mrs. Ulys Jackson, Harrison.
 PUBLIC RELATIONS—Mrs. L. H. McDaniel, Tyrone.
 PHYSICAL HEALTH EXAMINATIONS—Mrs. E. D. McKnight, Brinkley.
 MEMORIAL AND CHAPLAIN—Mrs. C. E. Kitchens, DeQueen.
 ILSE F. OATES STUDENT LOAN FUND—Mrs. C. E. Oates, Little Rock.
 DOCTOR'S DAY—Mrs. L. E. Reed, Hot Springs.
 ARCHIVES—Mrs. Carl A. Rosenbaum, Little Rock.
 ESSAY CONTEST—Mrs. L. D. Reagan, Little Rock.
 CONSTITUTION AND BY-LAWS—Mrs. O. J. T. Johnston, Batesville.
 CANCER CONTROL—Mrs. W. R. Brooksher, Fort Smith.
 BIOGRAPHY—Mrs. C. W. Dixon, Gould.

in
amebiasis:



symptomatic... asymptomatic

Barr¹ states: "... it is just as important to treat properly the symptomless 'carrier' of this parasite as to treat the patient suffering from amebic dysentery."

Stitt, Clough and Clough² report, "The disease may be symptomless . . . These mild or symptomless cases have been shown to outnumber greatly the cases with clinical dysentery. They constitute the carriers or 'cyst-passers'."

DIODOQUIN (5, 7-diiodo-8-hydroxyquinoline) is safe to use even in suspected cases of amebiasis. Nonirritating, nontoxic—Diodoquin has been found promptly destructive to protozoa in amebiasis and *Trichomonas hominis* (intestinalis).

DIODOQUIN

1. Barr, D. P.: *Modern Medical Therapy in General Practice*, 2:1830, Baltimore, Williams & Wilkins Company, 1940.

2. Stitt, E. R.; Clough, P. W., and Clough, M. C.: *Practical Bacteriology, Haematology and Animal Parasitology*, ed. 9, Philadelphia, P. Blakiston's Son & Co., 1938, pp. 410-412.



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PROGRAM

MONDAY, APRIL 15, 1946

PLACE: Mezzanine Floor, Albert Pike Hotel

9:00 A.M.—REGISTRATION.

12:30 P.M.—EXECUTIVE BOARD MEETING AND LUNCHEON. Place: Parlor A. Price \$1.12.

GENERAL SESSION

PLACE: Parlor B & C—Albert Pike Hotel

2:00 P.M.—OPENING OF SESSION—Mrs. Charles R. Henry, President, Woman's Auxiliary to Pulaski County Medical Society.

INVOCATION—Mrs. R. A. Law.

ADDRESS OF WELCOME — Mrs. J. Nye Compton.

INTRODUCTION OF STATE PRESIDENT—

Mrs. E. L. Thompson, Hot Springs.

RESPONSE TO ADDRESS OF WELCOME—

Mrs. W. G. Hodges, Malvern.

REPORTS OF OFFICERS.

REPORTS OF STATE CHAIRMEN.

INTRODUCTION OF SPECIAL GUESTS—

Mrs. Arthur A. Herold, Shreveport, Louisiana, National Constitutional Secretary of the Auxiliary to the American Medical Association.

REPORT OF SECOND ANNUAL CONFERENCE OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION held at the Hotel Knickerbocker in Chicago, December 5th and 6th, read by Secretary, Mrs. W. K. Wright.

REPORT OF THE MEETING OF THE WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION — Mrs. J. P. Price, Monticello.

ANNOUNCEMENT OF SPECIAL COMMITTEES—Mrs. Charles R. Henry.

REPORT OF REGISTRATION COMMITTEE — Mrs. Curtis Jones, Benton.

REPORT OF ENTERTAINMENT COMMITTEE — Mrs. Carl A. Rosenbaum.

GENERAL SESSION

TUESDAY, APRIL 16, 1946

Mirror Room, Albert Pike Hotel

9:30 A.M.—CALLING THE MEETING TO ORDER—

Mrs. E. L. Thompson, President.

INVOCATION—Mrs. W. C. Langston.

READING OF THE MINUTES—

ADDRESS—Dr. C. A. Archer, DeQueen, President, Arkansas Medical Society.

REPORT OF COUNTY AUXILIARIES.

REPORT OF THE REGISTRATION AND CREDENTIALS COMMITTEE.

GREETINGS FROM WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—Mrs. Arthur A. Herold, Shreveport, Louisiana.

ELECTION OF OFFICERS.

ANNOUNCEMENT OF THE ENTERTAINMENT COMMITTEE—Mrs. Carl A. Rosenbaum.

11:00 A.M.—MEMORIAL SESSION—(Joint Meeting with Arkansas Medical Society).

Presiding—

See Arkansas Medical Society Program.

1:00 P.M.—LUNCHEON. Place to be announced.

TOASTMISTRESS—Mrs. Charles R. Henry, President, Woman's Auxiliary to the Pulaski County Medical Society.

INVOCATION—Mrs. Pat Murphey.

INTRODUCTION OF PAST PRESIDENTS.

INTRODUCTION OF STATE OFFICERS.

INTRODUCTION OF WIVES OF OFFICERS OF THE ARKANSAS MEDICAL SOCIETY.

PRESIDENT'S REPORT.

ADDRESS—Mrs. Arthur A. Herold, Shreveport, Louisiana, National Constitutional Secretary of the Auxiliary to the American Medical Association.

POEM—"The Home Coming"—1945-(1946)

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REPORT OF THE COMMITTEE ON COURTESY RESOLUTIONS.
INSTALLATION OF OFFICERS.
PRESENTATION OF GAVEL—Mrs. E. L. Thompson.

ADDRESS OF INCOMING PRESIDENT—Mrs. Fred Hames, Pine Bluff.

4:00 P.M.—POST-CONVENTION BOARD MEETING—Mrs. Fred Hames, Presiding.

SPECIAL COMMITTEES—(LOCAL)

ENTERTAINMENT—Mrs. Carl A. Rosenbaum.

REGISTRATION—Mrs. Curtis Jones, Benton.

FLOWERS—Mrs. Randolph T. Smith.

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AN INVITATION

Dear Members of the Arkansas Auxiliary:

I am writing this note to ask every one of you to be sure and come to the state meeting in Little Rock, I wish I could see each one and extend to you a personal invitation, but since I cannot, will you please consider this one? We want you here to enjoy it with us. We want you here to take part in the meeting with Mrs. E. L. Thompson, our president. We want you here so that we may all really know each other. Plan to spend April 15, 16 and 17 in Little Rock.

I expect to see you there!

Mrs. Charles R. Henry, President
Woman's Auxiliary to the Pulaski County Medical Society.

WOMEN'S AUXILIARY NEWS

The Bowie and Miller Medical Auxiliary met jointly with the Medical Society and their invited guests at the annual Christmas dinner party, which was held at Hotel Grim December 14 at 6:30.

The "U" shaped table was beautifully decorated with greens, candles, Christmas balls, and silver birds. The speaker's table had a large centerpiece of silvered leaves, flanked with candles.

Mrs. Hibbitts, Auxiliary president, was toast-mistress. After a few welcoming words, she introduced Mrs. Alrid Hanson, Bowie President, Dr. C. H. Frank, Mr. and Mrs. Wilbur Smith, and special recognition was taken of Dr. Allen Colom recently returned from overseas service.

At the close of the dinner, Mr. Wilbur Smith gave the group fifteen minutes of his spicy fun, exaggerations and caricatures, then announced that the audience was to view a scene of the Auxiliary meeting in the gay nineties and gave the cast as follows:

Hostess—Flora Kemp.

President—Nettie Kosminsky.

Secretary & Treasurer—Ruth Baskett.

Chairman of Culture Achievements—Lena Robison.

Chairman of Card Parties—Lillian Cross and Ruth Kittrell.

Ticket Chairman—Margaret Rives.

Chairman of Terpsichore—Ethel David.

Epicure of Fine Arts—Katherine Hibbitts.

Member at Large and a Song Bird—Miriam Daubs.

Accompanist—Mrs. Smith.

To lively music the cast came in smiling and bowing, dressed in gay costumes of the 1890's, with song and pantomime enacted a scene of an Auxiliary meeting of 50 years ago.

At the conclusion, Wilbur Smith won first prize, as special guest, by guessing who had received the ticket from Chairman Rives.

The highlight of the evening was the guest speaker, Dr. Alrid E. Hanson of Galveston, Director of Child Welfare Program of the State of Texas, and professor of Pediatrics of Medical School of University of Texas. He was introduced by Dr. C. E. Kitchens.

Dr. Hanson spoke interestingly on disturbance of the endocrine glands, and illustrated rare cases by means of slides.

Mrs. C. E. Kitchens entertained the Auxiliary, and was in charge of arrangements, and the table decorations were done by Mrs. Hibbitts, Mrs. Kirkpatrick and Mrs. Murry.

Mrs. Wm. Hibbitts, President.

Mrs. Ralph Cross, Secretary.

The Bowie and Miller County Medical Auxiliary met in the home of Mrs. Harry Murry January 25th. Co-hostesses were Mrs. A. G. Lee, Mrs. E. M. Watts and Mrs. N. W. Peacock of Ashdown.

Dr. C. H. Frank was guest speaker at the meeting. He was introduced by Mrs. William Hibbitts, president. Dr. Frank spoke on the clinic which will be held in Texarkana for the Women's Field Army of Cancer Control. The clinic will be held February 15.

Members of the Auxiliary contributed to the Infantile Paralysis fund.

Mrs. Roy Basket and Mrs. Ralph Cross conducted the program. A quiz on "American Women" was held.

The dining room was decorated with spring flowers. Coffee and desert were served by Mrs. Hibbitts and Mrs. Cross to 20 members.

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LITTLE ROCK, ARKANSAS, APRIL, 1946

No. 11

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LITTLE ROCK, ARKANSAS, APRIL, 1946

No. 11

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

Digitalis Intoxication

"Instances of digitalis intoxication occur far too frequently in clinical practice and therefore merit reemphasis and discussion. In Withering's classic article, 'an account of the fox glove,' published in 1785, he admonished those who would use the drug in the following words:

"'. . . The directions, therefore, required an additional attention to the state of the pulse, and it was moreover of consequence not to repeat the doses too quickly, but to allow sufficient time for the effects of each to take place, as it was found very possible to pour in an injurious quantity of the medicine, before any of the signals for forbearance appeared.

"'Let the medicine, therefore, be given in the doses, and at the intervals mentioned above: let it be continued until it either acts on the kidneys, the stomach, the pulse, or the bowels: let it be stopped upon the first appearance of any of these effects, and I will maintain that the patient will not suffer from its exhibition, nor the practitioner be disappointed in any reasonable expectation.'

"Owing to changes in the standards adopted by the United States Pharmacopoeia some confusion has prevailed among American physicians regarding the potency of various digitalis products and a brief statement of fact may aid in clarifying this question. During the period covering the eleventh edition of the United States Pharmacopoeia (1936 to 1942) the strength of most American preparations of digitalis was increased 30 to 50 per cent, but since the publica-

tion of the twelfth edition in 1942, the strength has been decreased slightly, so that today the standard unit exceeds that of 1937 by 16 to 30 per cent. Thus, today a pill or capsule composed of 1 grain (0.065 gm.) of dried digitalis leaf according to the new international standard corresponds to approximately 1 1/3 grains (0.086 gm.) of the U.S.P.X digitalis and to 5/6 grain (0.054 gm.) of the U.S.P. XI digitalis. It is, therefore, of great importance to know the strength of the digitalis preparation to be used and to gain experience with a given product.

"The fact that digitalis, when administered orally in conservative individual doses, acts slowly but is retained in the tissues of the body as successive doses are given (cumulative action) lends itself ideally to an individualized therapeutic program when judiciously supervised. By the same token, this characteristic action of the drug constantly invites drug poisoning when digitalis is administered in excessive quantities too rapidly and over too great a period.

"The common symptoms and signs of digitalis intoxication are well known but not always heeded. They consist of anorexia, nausea, vomiting, less commonly diarrhea, and slowing of the pulse rate. The latter effect is most dramatically observed in cases of auricular fibrillation with pulse deficit as exemplified by many cardiopathies in congestive heart failure. The occurrence of coupled beats and partial or complete heart block has also received considerable attention but other toxic effects are not so well known and warrant considerable attention because they frequently appear in the complete absence of the aforementioned manifestations.

"Occasionally, during the excessive administration of digitalis, paroxysms of tachycardia may appear, chiefly of the ventricular and auricular types, as well as paroxysms of auricular fibrillation and less commonly auricular standstill, ventricular fibrillation and death.

"Prompt recognition of the toxic effects of digitalis on the brain and certain nerve tissues is extremely important, because the continued

administration of the drug when these toxic phenomena appear may result in the death of the patient. Prominent among them are disturbances of vision. These disturbances consist of dimness of vision, inability to focus the eyes with resulting difficulty in identifying objects, scotomata, diplopia and so forth. Yellow or green vision may be a striking phenomenon and is often an alarming manifestation of digitalis intoxication. These symptoms may be preceded or followed by restlessness and increased nervous irritability and periods of disorientation regarding time and place. A stupor may supervene from which the patient may not recover. It must again be emphasized here that these cerebral toxic phenomena may appear without the occurrence of anorexia, nausea and vomiting. However, the relative frequency of anorexia, nausea and vomiting during excessive administration of digitalis is probably fortunate if and when the physician recognizes the signal as an indication to discontinue administration of the drug at least temporarily.

"In the experimental animal following the administration of large doses of digitalis, regions of myocardial necrosis have been observed. Dearing, Barnes and Essex in their experimental studies with digitalis found no demonstrable changes in the myocardium of the animals after administration of either 40 or 50 per cent of the minimal lethal dose of the drug. Furthermore, I know of no proved instance of this type in man.

"Clinical experience with digitalis has permitted certain fairly definite concepts to be developed and, when these are applied, a safe method of utilization can be quite uniformly carried out. The physician's first consideration is to determine whether the administration of digitalis is indicated. I stress this point because I observe many cases in which patients have been receiving digitalis for various periods and in various doses but in which the indication for the administration of the drug was either absent or extremely doubtful. The most unqualified indications for digitalis therapy are in cases of congestive heart failure with or without auricular fibrillation (the former group usually respond more quickly and dramatically than the latter), those cases in which congestive heart failure is impending, and, finally, those cases in which congestive failure has occurred and maintenance doses of digitalis may be indicated permanently. Other indications are controversial and will not be discussed here except to mention briefly the administration of the drug as a temporary expedient in cases of paroxysmal auricular fibrillation and

flutter and the intravenous injection of lanatosid-C in cases of paroxysmal tachycardia of supraventricular origin.

"Before administering digitalis the physician should determine as accurately as possible whether the patient has received the drug and, if he has received it, when the drug was last administered and in what dose. It is also important to inquire whether the toxic effects of digitalis have ever been experienced. In certain instances these data cannot be obtained and then the securing of an electrocardiogram may give valuable information, for if the typical abrupt T wave inversions of digitalis excess are observed, it is well to allow a period to elapse before administering more of the toxic agent.

"Clinical experience has repeatedly shown that old patients are less tolerant to digitalis than are young patients. Therefore, when the exhibition of the drug to old patients is indicated, it should be given cautiously and never excessively and supervision should be strict.

"Another set of circumstances which demands constant alertness is that of the patient who has congestive heart failure with massive retention of fluid and who has received considerable digitalis without apparent benefit. In this situation, the drug, as well as the body fluids, is literally locked and the sudden release of large quantities of fluid, such as occurs after the administration of the mercurial diuretics, may result in severe digitalis intoxication.

"Patients who have hyperthyroidism, especially those who have hyperfunctioning adenomas, do not tolerate digitalis well and the drug should always be administered with caution when the indication for its use is unquestioned. Even mild digitalis intoxication in a patient awaiting thyroidectomy may result fatally.

"Finally, the physician must be certain that he is familiar with the potency of the digitalis which he prescribes. When he has secured a satisfactory preparation, it is desirable to use this preparation rather than to attempt to construct his experience with many preparations."

Fredrick A. Willius, M. D.

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DIAPHRAGMATIC HERNIA: WITH REPORT OF A CASE

J. HARRY HAYES, B.S.; M.S.; M.D.; F.A.C.S.; F.I.C.S.
Little Rock

A review of a small portion of the literature on the subject reveals that diaphragmatic hernia is of much more common occurrence than is generally thought. Reports of cases date back to the time of Ambroise Pare.

Diaphragmatic hernia may be defined as the presence of abdominal viscera in the thoracic cavity and passing through abnormal openings in the diaphragm, and occasionally the esophagus, or they may be caused by traumatic rupture or inflammatory necrosis of the normal diaphragm (1).

There has never been any definite and satisfactory manner of diagnosing this condition as one would the more common abdominal and chest lesions. The roentgenologist has done more to offer a diagnosis than any one else.

All forms and phases of herniation at different sites in the diaphragm have been abundantly reported. During the years 1930 to 1939, inclusive, 673 articles on various phases of diaphragmatic herniation were added to the literature as listed by the Quarterly Cumulative Index Medicus (2).

Instances of true hernia at the esophageal hiatus were recorded not infrequently during the early part of this century, but with the coming of the x-ray (or improvement in roentgenographic technic) during the past 20 years the rather high incidence of the condition has been recognized (3).

Akerlund in 1926 cited 60 cases recorded in the literature up to that time and reported 24 of his own. Harrington reported 680 cases seen at the Mayo Clinic between 1908 and 1939. The first of these cases was diagnosed in 1908, at the time of an operation, and in 1921 the first diagnosis by roentgen examination was recorded (4).

In roentgen examination in those cases in which the hernial contents are intestines, the diagnosis is usually obvious, because of the presence of loculated gas shadows or through the introduction of barium. When the contents of the hernia consist of a solid organ as omentum, the diagnosis is often obscure. The location of shadows of soft tissue density in this area is suggestive of the possibility of anterior mediastinal tumor and this is often foremost in the interpreter's mind (5).

Developmentally and anatomically the dia-

phragm is an organ which has many potential points for herniation. The normal diaphragm contains three large openings and several smaller openings. The aorta, esophagus and vena cava pass through the large openings. The most frequent sites of diaphragmatic hernia are through the foramen of Bochdalek, through the esophageal hiatus, through the foramen of Morgagni, through the dome of the diaphragm and through the gap left by the absence of the hemidiaphragm (6).

It seems important that this condition must be kept constantly in mind at all times, for all patients who present any of the symptomatology of diaphragmatic hernia (which will be discussed more fully later in this article), but especially must it be kept in mind in children or the new born and in pregnant women. In congenital diaphragmatic hernia, present at birth, if the defect is large enough to cause symptoms the infant usually dies.

The clinical syndrome of these large hernias present at birth is simply one of intense respiratory and circulatory disturbances, and can easily be confused with cerebral trauma, asphyxia, atelectasis, or congenital cardiac defects (7).

The symptoms of diaphragmatic hernia may indicate any one of the several conditions in either the anterior chest or upper abdomen. The abdominal symptoms may be: (1) epigastric pain, (2) distress after or during a meal, (3) bloating, (4) belching, (5) heartburn, (6) nausea, (7) vomiting, (8) regurgitation, (9) night pain, (10) dysphagia and hiccough. The anterior chest simulations may be confused with symptoms of angina pectoris, or infarction.

Ohler and Ritvo have described symptoms which they think are particularly suggestive: A feeling of fullness, pain or distress in the epigastrium or under the tip of the xyphoid, coming on with the ingestion of the first few mouthfuls of food. In some cases the symptoms are so severe that the meal must be discontinued. However, the patient may report that if he leaves the table and walks about the symptoms subside so that he may finish the meal with comfort. The explanation may be that movement causes the herniated portion of the stomach to reduce itself. When this syndrome is present, it permits a practically definite diagnosis. Rarely, patients with cardiospasm or esophageal diverticulum may give a somewhat similar history. However, the relief is not usually so complete (8).

The contents of a diaphragmatic hernia, no doubt, could be almost any or all of the con-



FIG. 1

ceivable movable contents of the upper abdomen.

The particular hernia to be presented and described was one of the left diaphragm in a man, 26 years of age, with the following history as obtained by the intern.

Chief Complaint: Sensation of gas and pressure in stomach.

Present Illness: About two years ago the patient states that, while wrestling, he was squeezed across the upper abdomen. About one year later he noticed his heart began to flutter, and he also noticed an increasing nervousness and started losing weight. About six months later he had a second similar attack of nervousness with fluttering of the heart. He had no vomiting of food or intolerance to food except that he could not eat as much as he formerly did as it seemed to him that his stomach filled up quicker. His weight declined 25 pounds in three years.

Physical examination revealed a white male, age 26, measuring 5 feet 7 inches in height, weighing 125 pounds, with blood pressure of 130 systolic and 70 diastolic. The various systems checked all proved to be normal. There was an

occasional extra systole. The patient brought with him a film of the chest from his referring physician, and it was thought a diaphragmatic hernia was present (Figure 1).

The roentgenologists findings are quoted below:

"Fluoroscopic examination of this patient's chest showed a bulging upward of the posterior part of the left arch of the diaphragm. Within this bulge there was some gas or air. Fluoroscopic examination of the esophagus during the ingestion of a barium mixture showed that the esophagus did not empty into the bulge described above. The cardia of the stomach did, however, enter into this bulge which proved to be a hernia of the posterior part of the left arch of the diaphragm. The sides of the hernia were about 3 x 3 x 3 inches. It has a perfectly smooth upper border, and there is no constriction at the diaphragmatic level. The smoothness of the superior border suggests the possibility of an eventration of the diaphragm rather than a definite herniation through an aperture. The esophagus did not enter into this hernia, but entered the stomach at the normal position below the diaphragm. Films of the stomach and diaphragm showed no other gastric changes except incarceration in the hernia as described above. At the end of six hours the stomach was empty and the barium was in the colon. A barium enema was administered to see if part of the colon also was herniated. This proved to be the case. The splenic flexure of the colon lay in the hernial sac with no constriction or obstruction or apparent embarrassment of function of the colon.

"The findings are those of a herniation or eventration of the posterior part of the left arch of the diaphragm with the stomach and colon forming part of the contents of the hernial sac."

The patient was entered in St. Vincent's Infirmary on May 2, 1945. On May 3rd at 9:00 p.m. the stomach was decompressed with a Wangenstein apparatus and at 8:00 a.m. on May 4 the patient was operated on under cyclopropane anaesthesia.

A left upper paramedian incision was made extending up to the ribs and was brought slightly below the level of the umbilicus. The right hand of the operator was placed in the abdomen and the stomach was easily pulled downward, the cardiac end being displaced from the chest. The colon (splenic flexure) was handled in a similar manner and no difficulty was encountered. Then the right hand of the operator was placed in the hernial sac. The opening was

large enough to admit the hand easily and a hard mass was encountered. It did not pulsate. It was brought back into the abdomen and was found to be the spleen. The sac at that time was empty, and closure of the opening began. Under excellent anaesthesia and willing help on the part of the assistants and nurses the hernial ring was obliterated with No. 2 chromic catgut doubled. Then this was reinforced with No. 3 chromic catgut doubled.

The patient made a splendid post-operative recovery. There was never any doubt as to his doing well except that he ran an elevated temperature for about 12 days.

Subsequent roentgenological findings: "A postero-anterior film of this patient's chest was made. This film shows heavy fibrous strands extending out from the lung root shadow on the right side. The significance of these is not fully understood, but they probably represent some inflammatory process. The two arches of the diaphragm are about at the normal levels. Fluoroscopy of the chest showed good excursion of the diaphragm on both sides.

"A complete barium meal and barium enema examination was made of the stomach and intestinal tract. These examinations showed some distension of the large intestines with gas but they were entirely negative for signs of organic disease of any sort."

The patient was discharged on the twenty-first post-operative day and has remained well up to the time of this report.

The treatment of diaphragmatic hernia must necessarily be medical in some cases, i.e., in old and debilitated patients who have had their hernias for a long time and beyond any doubt would not tolerate a major surgical procedure. I have had one such case in the hospital on two or three different occasions. She is a diabetic as well. Each time, with the aid of the Wangenstein, glucose and saline intravenously and other supportive measures, she was able to return home to her bed and chair, even recovering to the extent of visiting and shopping, only to have a recurrence of her partial obstruction with vomiting.

In cases that are reasonable surgical risks, however, early surgery is to be recommended as it gives an excellent chance for permanent cure.

The mortality rate is quoted at 20 per cent. And in cases with obstruction the mortality is quoted at 40 per cent.

It seems reasonable to assume that the operative mortality would be more than double in the obstructed cases. Recurrences are quoted at 12 per cent.

For repair of diaphragmatic hernia there, no doubt, is no standard approach or technique. Each case, as in all other surgery, must be handled as an individual one. Several requirements are necessary and a few basic rules must be met and followed:

1. The proper approach must be selected.
 2. The patient must be able to stand a major surgical procedure.
 3. Ideal anaesthesia must be obtained.
- The anaesthetist should be given all the time necessary to have the patient **completely** relaxed. There should be not the least rush in making the initial incision.
4. The exposure must be entirely adequate.
 5. Reducing the hernia must be gently done, but procrastination has no place here.
 6. After reduction of the contents of the hernia, an important step is to secure the diaphragm with instruments that will hold and pull the diaphragm down, so it may easily be sutured, rather than to attempt the closure while it is making high excursions with each respiration.
 7. Suture material of adequate strength must be used. Non-absorbable sutures are not necessary in all cases.
 8. Even while surgery is going on, sudden chest complications must be watched for, proper precautions taken and instant treatment given if needed.
 9. The Wangenstein, turning of the patient, transfusions, penicillin, the sulfonamides at the time of operation and post-operatively, plus adequate sedatives and other supportive measures, are of high importance during the post-operative course.

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TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE general practitioner of medicine armed with newer methods of diagnosis and aware of the limitations of earlier diagnostic procedures can recognize tuberculosis in its early stages if he has a lurking suspicion it may be present. Such a suspicion will arise more often when recent developments in the diagnosis of chest diseases are reviewed.

THE EARLY DIAGNOSIS OF DISEASES OF THE CHEST

The early diagnosis of diseases of the chest is more important today than at any time in the history of medicine. Mass X-ray surveys have revealed that intrathoracic abnormalities and diseases are more frequent than has hitherto been suspected. Modern diagnostic procedures make early diagnosis more easily attainable than before. Modern medical and surgical procedures have increased the chances of control or cure in most diseases of the chest.

Not so long ago the physician had to rely on the history, the physical examination and inadequate bacteriologic study of the sputum to establish a diagnosis of intrathoracic disease. Diagnoses could be made during this era only when the pathologic process was in an advanced stage. In recent years, however, fluoroscopy and roentgenography have become universally available. Bronchoscopy has been perfected so that it can now be performed with only slight discomfort to the patient and with little risk. Better bacteriologic technics have been developed. Aspiration biopsy of lung tumors is helpful in certain cases. The advance in medical and surgical therapy of chest lesions has kept pace with the diagnostic developments.

In spite of these facts, 60 per cent of tuberculous patients who are referred to sanatoriums have far advanced disease, and only 10 per cent have minimal lesions. Less than 25 per cent of the patients with cancer of the lung are referred for surgery before extension of the tumor has occurred. Recently Overholt discovered that among

153 patients with cancer of the lung an incorrect diagnosis had been made in 95 cases (60 per cent). Treatment based on this had been maintained for long periods of time.

There may be several reasons for the delay in diagnosis. The patient frequently delays going to the physician because he has few or no symptoms; the presenting clinical picture often suggests another diagnosis; physical examination is notoriously unreliable; and the application of rigid diagnostic methods is often delayed because the physician has not developed a sufficiently strong suspicion of the underlying disease.

No attempt will be made to cover completely the symptoms associated with intrathoracic diseases, but the following points require emphasis. Almost all the diseases of the chest have an early asymptomatic stage, during which the pathologic process can be discovered only by X-raying the chest. This stage is apt to be so mild that the seriousness of the underlying lesion is overlooked. Cancer and tuberculosis may masquerade as each other, or as any of the commonplace diseases of the chest, or as an entirely foreign clinical picture, such as arthritis.

Physical examination of the chest is essential in the evaluation of any patient, but the time has come to recognize its limitations as well as its value. As early as 1933, Sampson and Brown reported that moderately coarse rales at an apex were the only reliable data obtained on physical examination, and added that these were present in only 27 per cent of the minimal cases. They analyzed the occurrence of the five cardinal signs and symptoms of tuberculosis in a series of 280 cases with minimal disease. Tubercle bacilli

were found in the sputum in 35 per cent, rales in 27 per cent, hemoptysis in 26 per cent, pleural effusion in 12 per cent, and X-ray evidence of pulmonary tuberculosis in over 99 per cent. In carcinoma of the lung, physical signs are extremely unreliable and at best only suggestive.

Roentgenologic study of the chest should be a routine procedure in the examination of every patient admitted to hospitals and institutions. In the light of present knowledge, routine roentgenologic study of the chest is at least four times as important as blood cell counts, urinalyses or other routine procedures now in use. It also serves to protect patients and hospital personnel against the unsuspected active cases of tuberculosis that are constantly present in hospitals. Fluoroscopy or photofluorography require little time and can be done at a cost of only a few cents a patient.

In every patient suspected of having tuberculosis careful sputum studies should be performed in an attempt to confirm the diagnosis. To avoid delay, the use of routine smears should be avoided. These smears are so unreliable that a negative result is meaningless. Three consecutive seventy-two hour pooled sputum specimens should be concentrated. If they are negative on microscopic examination, the sediment should be cultured and inoculated into guinea pigs, and three consecutive gastric lavages examined immediately by the concentration method. Acid-fast bacilli found in gastric lavages when the sputum is negative should always be cultured and inoculated into a guinea pig to identify the acid-fast bacilli as tubercle bacilli. When these tests are repeatedly negative in a patient with a demonstrable parenchymal infiltration in the lung that is apparently active, the lesion is probably non-tuberculous, and other diagnostic procedures are indicated.

Any patient with a visible tumor or an unexplained density or suppuration in the lung, especially if he is in the middle or older age group, should be suspected of having a pulmonary cancer. Such patients should be bronchoscoped immediately; 60 to 70 per cent of bronchiogenic carcinomas originate in the major bronchi, and a biopsy specimen to establish the diagnosis can be obtained.

Surgical exploration of the chest is a safe procedure, and should be utilized more frequently to determine the etiology of unexplained pulmonary lesions. Aspiration biopsy is used to secure tissue for pathologic study only in cases that are obviously inoperable. In patients in whom operation is possible, exploration is safer and more accurate.

The responsibility for the early apprehension of pulmonary disease rests largely on the shoulders of the general practitioner and the internist, since they are the first to see the patient. Their offices should and can be the greatest case-finding agencies in the entire field of medical practice. To make this possible, the limitations of the history, the physical examination and certain laboratory procedures must be more keenly appreciated, and rigid diagnostic procedures must be applied routinely.

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Casec (calcium casenate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 4 packed level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. One to three packed level teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. For further information, write to Mead Johnson & Company, Evansville 21, Indiana.

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EDITORIAL

THE HARRISON NARCOTIC ACT

The attention of all members is directed to the statement prepared by Mr. James J. Biggins, District Supervisor of Narcotics Control, Kansas City, which follows: "The Narcotics Control Division expresses itself as being alarmed over the haphazard prescribing of narcotics by physicians and the dispensing of same by druggists."

"An order form must accompany each transaction involving the transfer of narcotics except that doctors of medicine, who have complied with state and federal laws, may write individual prescriptions for narcotics for medicinal purposes only. The prescription must contain the patient's name, must be signed by the physician **as of the day it is dated** and must be on file with the dispensing pharmacist **at the time of delivery**. The pharmacist must keep these on file for at least two years. Federal inspectors may examine any pharmacist at any time. If narcotics have been delivered for which no prescription is on file the pharmacist **and the doctor** may be charged jointly in the federal courts and **both** will be principals in the case.

"TELEPHONE ORDERS. The federal law does

not provide for telephone orders. Therefore, inspectors cannot declare that an emergency makes a telephone order legal. The prescription must be filed when the patient receives the order. The delivery boy may stop to pick up the prescription when making the delivery, or if a member of the family calls for the product, he may stop at the doctor's office to pick up the prescription. Telephone orders represent a hazard to the doctor because addicts sometimes call, giving the doctor's name and obtain narcotics in this way.

REFILLS. A prescription must accompany the refill order. Again, the signed prescription must be in the pharmacist's possession at the time delivery is made.

"NARCOTICS FOR GENERAL OFFICE USE. The doctor should write an order for such narcotics. Prescriptions are to be used for the individual patient only.

"WHEN PRESCRIPTIONS ARE UNNECESSARY. Narcotic prescriptions are not necessary if not more than the following amounts of narcotics per fluid ounce are contained in the preparation:

- 2 grains opium.
- 1/4 grain morphine.
- 1 grain codeine.
- 1/8 grain heroin.

"However, a record of these sales must also be kept for a period of two years.

"ADDED NOTES. Narcotic prescriptions must be signed in ink or with indelible pencil. Physicians dispensing narcotics must record these transactions. This applies only where narcotics are left for the patient to take, not when they are administered by the physician, such as injections, etc."

Members are urged to give this statement careful consideration.

THE MURRAY-WAGNER-DINGELL HEALTH BILL

Announcement has been made that Senate hearing will begin April 2nd on the much-discussed S. 1606, the so-called "National Health Bill of 1945." The Senate Committee on Education and Labor has denied the request of the Society to send representatives to the hearings and has suggested that the Society may file a statement with the Committee, assuring the Society that such a statement will receive the full study of the Committee. Just how many proponents of the legislation will be permitted to tes-

tify in favor of the bill is not known. So far as is known, only the American Medical Association has received permission to testify for the medical profession.

It is most important that physicians generally recognize the implications of this legislation. Physicians cannot evade their responsibility in a matter which so vitally affects the health and welfare of present and future generations of Americans. Each physician should carefully study the measure as proposed, determining in his own mind just what kind of a medical profession and what kind of medical care will be available in America under the provisions of S. 1606. Determining this, it is his duty to acquaint other citizens in order that they may be fully informed and assist in the preservation of those forms of medical practice which have served our country so well.

JOURNAL EDITORIAL ASSAILS PROPAGANDA FROM CHILDREN'S BUREAU

In an editorial entitled "Dr. Martha M. Eliot—Propagandist For the Children's Bureau," The Journal of the American Medical Association in its March 9 issue attacks the "technic whereby the bureaucracies in Washington spend a considerable portion of their time and their funds in urging on the American people expansion of the funds and personnel allotted to those bureaucracies."

The editorial says in full:

From the Children's Bureau of the United States Department of Labor comes a newspaper release quoting Dr. Martha M. Eliot as urging a nation-wide maternal and child health program because it will offer thousands of opportunities for professionally trained men and women. Of course, it will also permit a tremendous expansion of the functions of the Children's Bureau and take away from fathers and mothers the personal responsibility and contacts with their own children that are significant in the American system of living. According to the release, Dr. Eliot said, "We have come to accept the fact that the health of the nation's children, is as much a public responsibility as their education." To support her propaganda Dr. Eliot cited some figures which are susceptible of misinterpretation; possibly these figures were cited in this manner so that they would be misinterpreted. "In one out of six counties," says Dr. Eliot, "there is only one doctor to 3,000 or more people. Under a good standard there would be one doctor available for every 750 people. In eighty-one counties

there is no practicing physician." Dr. Eliot could have added that we had one doctor for every 750 people in the United States before the war but that the voluntary offering of their services by 60,000 physicians to the armed services changed the ratio. Since the United States is the only country in the world that ever had as many as one doctor to every 750 people one wonders on what basis her calculation of a good standard was reached. Dr. Eliot also estimates that we need 48,000 additional public health nurses to advise mothers in their homes about how to care for themselves and their children. She is much disturbed because three out of four counties have no regular monthly maternity clinic where mothers can learn how to prepare for safe childbearing. We were under the impression that the doctor who accepts the responsibility for giving obstetric care to a prospective mother is the proper person to inform her as to how to prepare for safe childbearing. Apparently the Children's Bureau feels that mothers should henceforth obtain this advice from regular monthly maternity clinics. Among the greatest menaces to the American democracy is the technic whereby the bureaucracies in Washington spend a considerable portion of their time and their funds in urging on the American people expansion of the funds and personnel allotted to those bureaucracies.

THE ANNUAL SESSION

The Seventieth Annual Session of the Arkansas Medical Society, the 1946 Victory Session, will be held in the Marion Hotel, Little Rock, April 15-17th. The preliminary program appeared in the March issue of The Journal. This year's meeting offers much to all members; a scientific program of interest, a large number of exhibitors, technical and scientific, the promise of the largest attendance in many years with the opportunity to meet colleagues from over the state and, in particular, the returned medical officers of the Society, most of whom have returned to active practice. This is a session you cannot afford to miss. The desirability of making hotel reservations is urged.

RANDOM THOUGHTS OF THE SECRETARY

February 27th. We never expected to see another fractured radius from cranking an automobile but we did today.

February 28th. That happy days are here again becomes certain with this day when we buy two new tires, have Shuffield and Watson as callers and attend Burns Gables with Amis and the family in a pre-opening session of that popular establishment.

March 2nd. This afternoon we are privileged to hear Hoge discuss diabetes with a diabetic patient and leave convinced that the art of medicine is greater by far than the science of medicine.

March 3rd. The youngster becomes of "teen" age reminding wistful parents that he is soon to step forth into a world of his own where we can do perhaps naught but to wish him well. So to celebrate the occasion we take his group to their first night-club outing for steaks and with misgivings, accede to his fervent wish and start him forth into this gasoline world with his first self-propelled vehicle—a motor scooter.

March 4th. This afternoon at Eberle's ranch across in Oklahoma where we inspect the various practices and improvements in stock-raising, envious of the excess fire-place timber which lies about from clearing of pasture land. Meeting Councilor Hunt and wife at our favorite spaghetti place tonight and finding it amazed at Earle's appetite. Later, homeward bound, meeting Merke Woods at the all-night grocery intent on provisions for tomorrow's fishing, which means that Woods Senior must yet postpone the day of his retirement from practice.

March 5th. The county society meets in special session for a discussion of prepayment plans and advertising, culminating in the unusual action of unfettered assessment, our pleasure being that, for once, collection of funds does not fall upon us.

March 7th. Meeting with the state cancer commission today reviewing progress of the program and making plans for future expansion and thence to Lido Inn as guest of Carl Rosenbaum where there is good food indeed. Home on Braniff's B-Liner which rides the air currents with but slightly less bumping than does a Cub but none aboard is airsick.

March 10th. With Kansas' Callahan and Ebel by air to Little Rock and return today, privileged to enjoy the enthusiasm of these two earnest workers from an aggressive state medical society and to observe happily that the Council has likewise become interested in plans for medical care of veterans and prepayment insurance as outlined by our guests.

March 13th. To Booneville in the early morning hours to meet Peggy who has been grounded in Memphis all day, but grateful to Bob and Margaret Robins, ever gracious in hospitality, who provided her with room accommodations on this enforced delay.

March 14th. Driving to DeQueen's diagnostic cancer clinic today where the cases are 90% dermatological, encouraged greatly by Norwood in the cheering section as we play the part of visiting clinician, and having opportunity to see his new DeSoto, its fenders yet undented. Homeward over U. S. 71, its beauties ever new with a short visit in Redman's new hospital finding him just about as busy as we were at DeQueen.

March 18th. Tonight attending the Legion's 27th birthday party, convinced once again of the flight of time, being the senior past-commander present.

March 21st. With Doyle Fulmer to meet the statisticians and analysts for a study of the hospital needs of Arkansas and, for once, we can follow in degree the involved meanings of statistics. Observing many a physician in Little Rock today, gathered to receive tangible award for their work in the examination of selectees.

March 23rd. Tonight for the gayety and zest of the high school band marching contest which the youngsters do with enthusiasm while the Oklahoma Military Academy presents band marching in its perfection.

PROCEEDINGS OF SOCIETIES

Lincoln County Medical Society has elected the following officers: President, Chas. W. Dixon, Gould; Vice-president, B. L. Bailey, Star City; Secretary-treasurer, Buford M. Gardner, Star City; Delegate, Buford M. Gardner, and Alternate, Chas. W. Dixon.

Clay County Medical Society has elected the following officers: President, N. J. Latimer; Vice-president, O. H. Clopton; Secretary-treasurer, J. E. McGuire; Delegate, J. B. Futrell, and Alternate, N. J. Latimer.

Saint Francis County Medical Society has elected the following officers: President, J. S. Davidson; Vice-president, J. M. Roy; Secretary-treasurer, J. O. Rush; Delegate, C. N. Bogart, and Alternate, J. O. Rush.

Washington County Medical Society was addressed March 5th by Loyce Hathcock on "Caudal Analgesia."

Ruth Ellis Lesh, Secretary.

Hot Spring County Medical Society has elected the following officers: President, T. L. Hodges; Vice-president, E. H. McCray; Secretary-treasurer, C. S. Pool; Delegate, W. G. Hodges, and Alternate, W. F. Barrier.

Benton County Medical Society met in dinner session at Rogers March 14th for a paper by J. S. Thompson, Gravette, and "Hospitals in Europe in World War II," W. J. Butt, Fayetteville.

Geo. M. Love, Secretary.

Jackson County Medical Society has elected the following officers: President, J. F. Jackson; Vice-president, I. H. Erwin; Secretary-treasurer, J. B. Ivy; Delegate, H. O. Walker, and Alternate, A. L. Best.

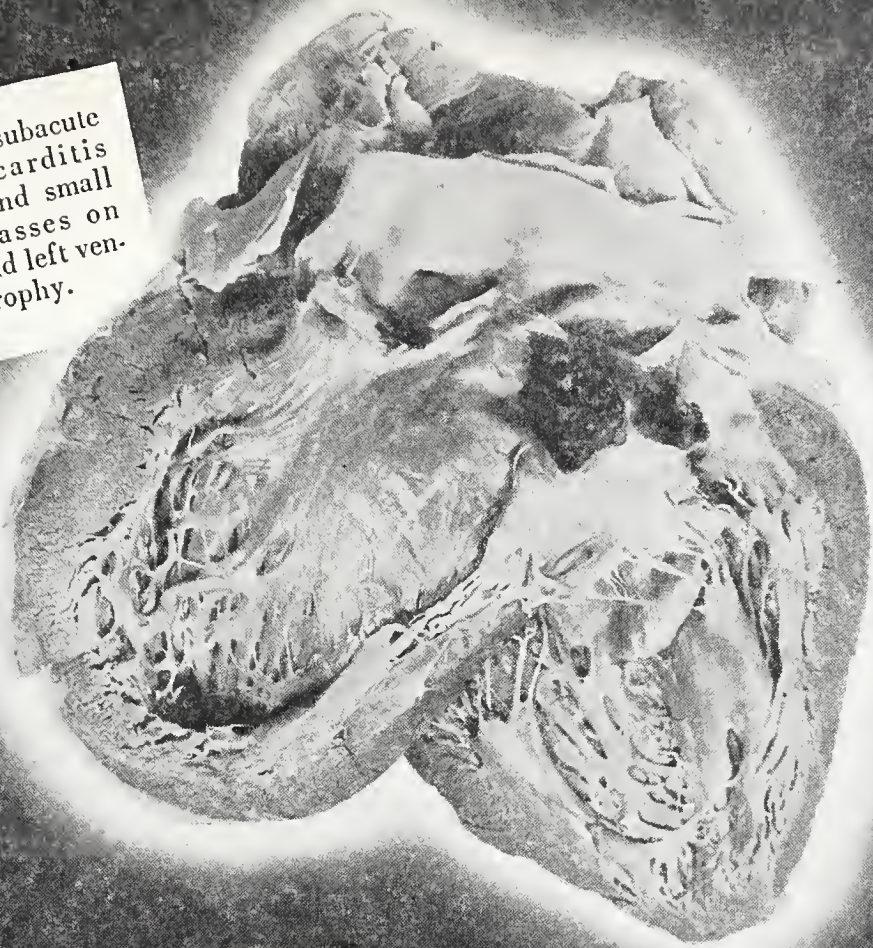
Drew County Medical Society has elected the following officers: President, Lewis Hyatt; Vice-president, J. B. Holder; Secretary-treasurer, Robert R. Hyatt, Jr.; Delegate, J. P. Price, Jr., and Alternate, Vann C. Binns.

The Ouachita County Medical Society met in dinner session March 7th at the Camden Hospital. The program was as follows:

"Thrombo-phlebitis," Carl Rosenbaum, Little Rock, and "Virus Pneumonia," Dan Autry, Little Rock.

R. B. Robins, Secretary.

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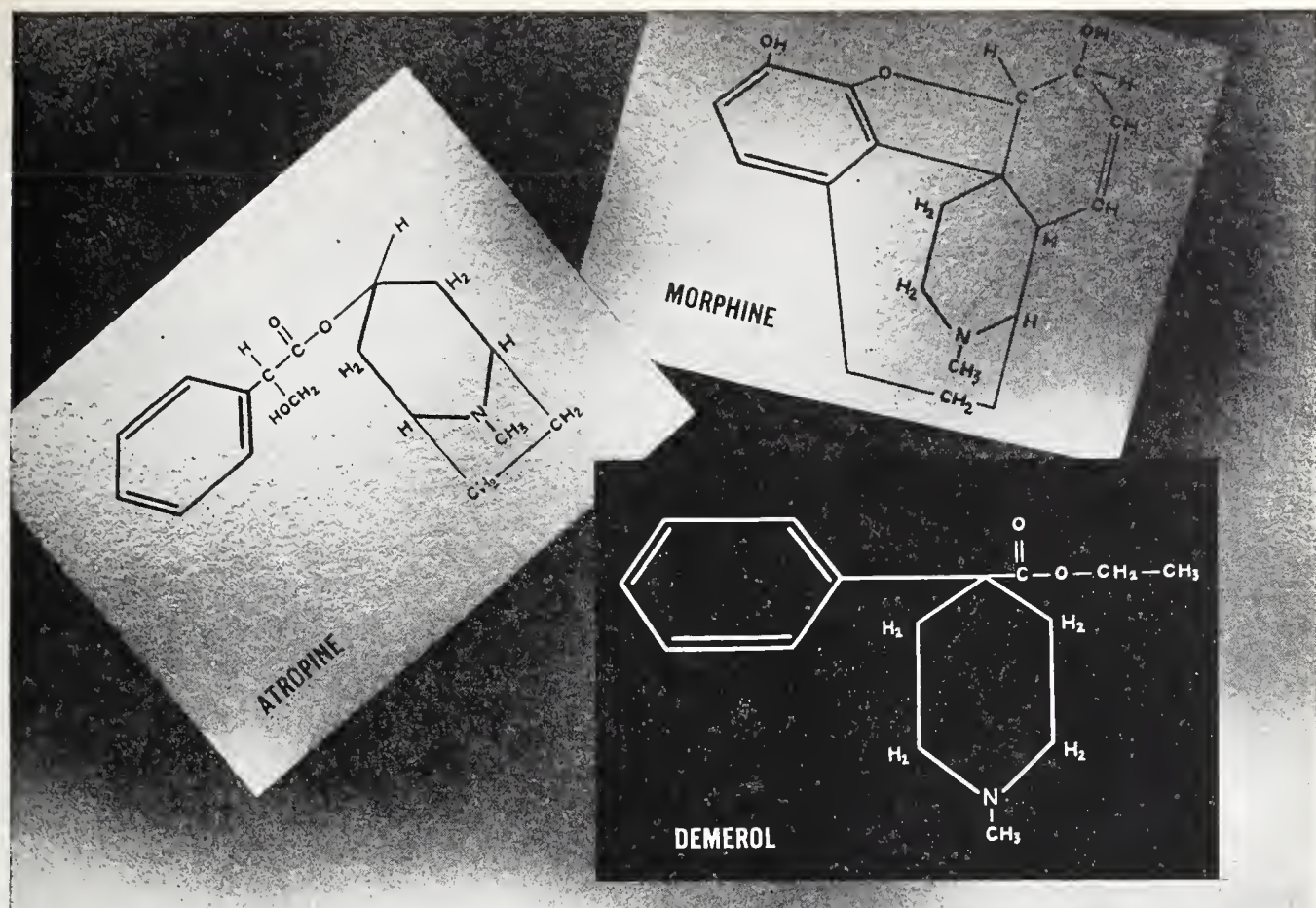
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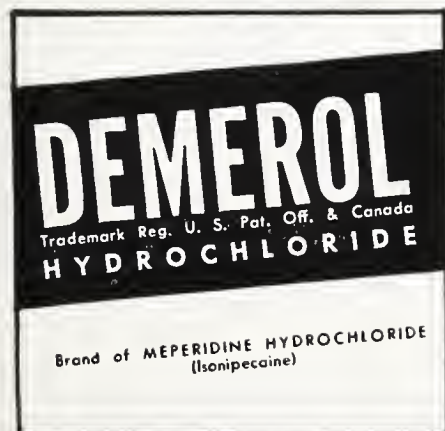
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Clark County Medical Society has elected the following officers: President, C. K. Townsend; Secretary-treasurer, Joe W. Reid; Delegate, Joe W. Reid, and Alternate, C. K. Townsend.

Sebastian County Medical Society was addressed March 11th by F. M. Lingenfelter, Oklahoma City, "The Fate of the Non-Toxic Adenoma," and Harry Wilkins, Oklahoma City, "The Diagnosis and Treatment of Ruptured Intervertebral Disks."

D. W. Goldstein, Secretary.

Pulaski County Medical Society was addressed March 4th by Millard F. Arbuckle, Saint Louis, on "Carcinoma of the Larynx."

E. J. Easley, Secretary.

Jefferson County Medical Society has elected the following officers: President, Allen Russell; Vice-president, H. T. Capel; Secretary-treasurer, B. D. Luck, Jr.; Delegate, W. H. Bruce, and Alternate, Virgil Payne.

Montgomery County Medical Society has elected the following officers: President, J. H. McLean, Caddo Gap; Secretary-treasurer, G. E. Watkins, Mount Ida; Delegate, J. B. Steuart,

Norman, and Alternate, W. D. Freeman, Mount Ida.

Columbia County Medical Society has elected the following officers: President, Joe F. Rush-ton; Vice-president, T. H. Jones; Secretary-treasurer, John H. Wilson; Delegate, Paul Sizemore, and Alternate, John H. Wilson.

Benton County Medical Society has elected the following officers: President, J. S. Thompson, Gravette; Vice-president, W. A. Moore, Rogers; Secretary-treasurer, Geo. M. Love, Rogers; Delegate, H. H. Buckelew, Rogers, and Alternate, Geo. M. Love.

The Southeast Arkansas Medical Society was addressed at McGehee February 18th by Fred H. Krock, Fort Smith, "Fractures of the Hip," and E. A. Mendelsohn, Fort Smith, "Gastrointestinal Lesions."

Monroe County Medical Society has elected the following officers: President, M. L. Dalton; Vice-president, W. H. Martin; Secretary-treasurer, W. L. Boswell; Censor, D. A. Mohler, and Delegate, E. D. McKnight.

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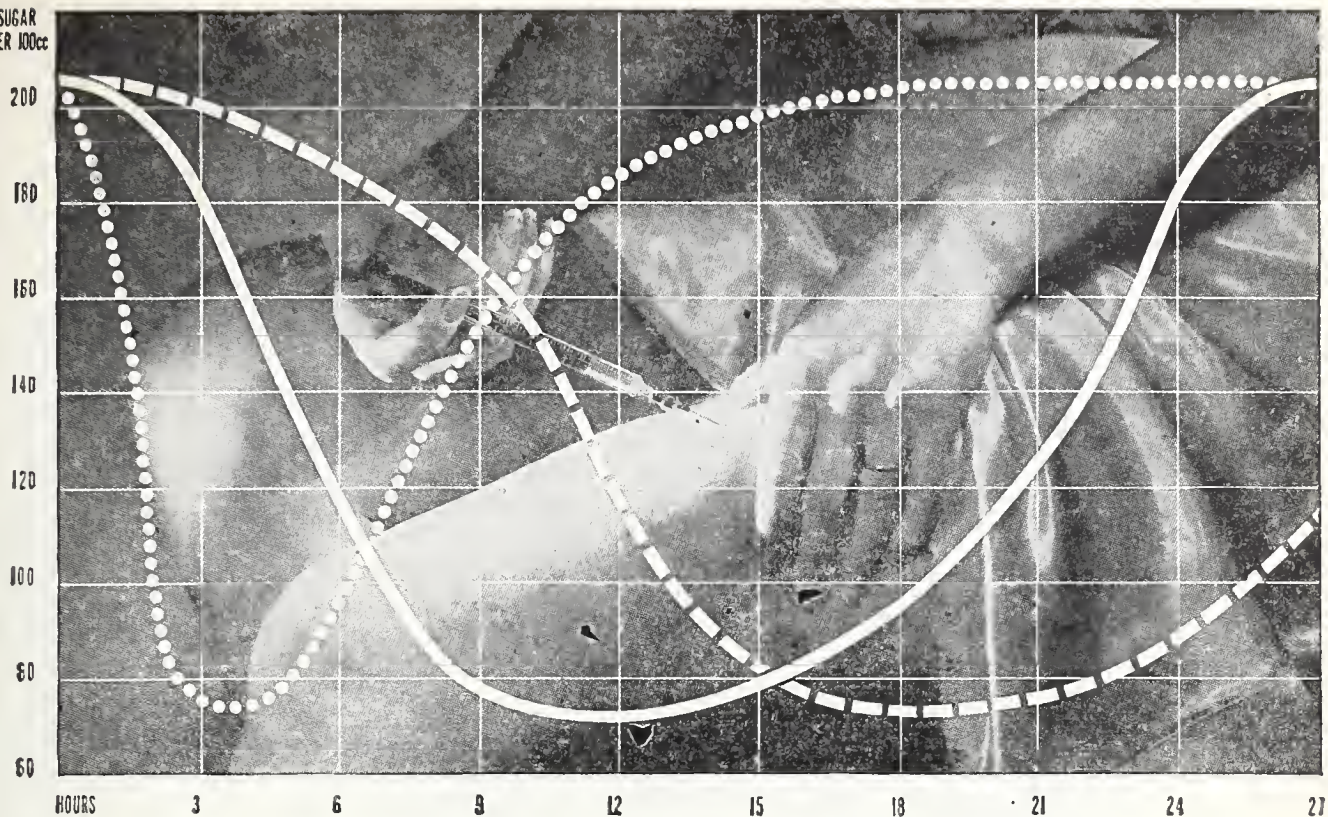
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PERSONALS AND NEWS ITEMS

C. C. Reed, Jr., has been released from military service and has returned to practice with offices at 705 Donaghey Building.

D. W. Dykstra has opened offices for practice at 215 East Sixth Street, Little Rock.

Elizabeth Fletcher Dishongh has been released from military service and has returned to practice with offices at 705 Donaghey Building, Little Rock.

Euclid M. Smith has been released from military service and has returned to practice with offices in the Medical Arts Building, Hot Springs National Park.

Ralph M. Sloan has been elected director of the Jonesboro Rotary Club.

G. D. Murphy, Jr., has been elected a director of the El Dorado Boys Club.

Major Jerome S. Levy, Little Rock, spent an April vacation in Mexico City.

S. C. Fulmer addressed the Arkansas Society of Professional Engineers at Little Rock March 2nd on "Organization and Operation of the American Medical Association."

The Journal extends wishes for all success to the Wm. T. Stover organization with their new store at 610 South Boston Avenue, Tulsa, Oklahoma, which will be managed by Lamar Massie.

W. J. Sheddan has been elected surgeon of the Osceola post, Veterans of Foreign Wars.

Lt. R. T. Moore, Marshall, is now stationed in Japan.

Perry J. Dalton has been released from military service and has returned to practice at Camden.

Dr. and Mrs. W. L. Shippey, Fort Smith, spent a March vacation at Biloxi, Mississippi.

E. J. Bieri has been released from military service and has returned to practice at Hot Springs National Park with offices in the Medical Arts Building.

Fred H. Krock, Fort Smith, attended the Dallas Southern Clinical Society during March.

N. B. Burch has purchased the Wheatly Tourist Court at Hot Springs National Park.

Jabez F. Jackson and Thomas E. Williams have purchased the Newport Sanitarium from A. M. Elton.

R. B. Robbins, Camden, attended the recent session of the Southeastern Surgical Congress in Memphis.

Chas. S. Holt, Fort Smith, spent a recent vacation in Florida.

Major Stanley M. Gates, Fort Smith, addressed the Woman's Auxiliary to the Sebastian County Medical Society March 11th on "Medical Functions of the Veterans Administration Program."

John W. Dorman, Springdale, recently addressed the PTA groups of that city on medical service in World War II.

Jabez F. Jackson has moved from Walnut Ridge to Newport.

W. G. Hodges, Malvern, attended the recent sessions of the American College of Surgeons in Saint Louis.

Ulys Jackson has been released from military service and has returned to practice at Harrison.

Gilbert O. Dean has been released from military service and has opened offices for the practice of general surgery at 629 Donaghey Building, Little Rock.

I. N. McCollum, Conway, spent a recent vacation in Florida.

"Spinal Analgesia with Solutions of Procaine and Epinephrine" by Mahlon D. Prickett, E. G. Gross and S. C. Cullen, appeared in Anesthesiology for September, 1945.

A. W. Thompson has been released from military service and has returned to practice at Bentonville.

O. B. Barger, Batesville, assigned to Station Hospital, Fort Myer, Virginia, as attending surgeon, has been promoted to major.

Neil Compton has been released from military service and has returned to practice at Bentonville.

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Thos. E. Williams has moved from Searcy to Newport.

A. M. Elton has been elected president of the First National Bank at Newport.

Robert H. Jackson has been released from military service and is serving a residency in anesthesiology at the University of Texas Medical School.

Vincent O. Lesh recently addressed the Fayetteville Rotary Club on military medical experiences.

BORN—on February 24th, a son, William Lee, to Dr. and Mrs. F. E. Shearer, Fort Smith.

T. S. Van Duyn has been released from military service and has returned to practice at Stuttgart.

Carl L. Wilson has been released from military service and has returned to practice with the Holt-Krock Clinic at Fort Smith.

Thos. G. Price has been released from military service and has returned to practice at Wynne.

Paul T. Stroud has been released from military service and has returned to practice at Jonesboro.

Dr. and Mrs. L. H. McDaniel, Tyronza, spent a January vacation at Hot Springs National Park.

M. E. Blanton has been released from military service and has returned to practice at Jonesboro.

OBITUARY

C. J. CAMPBELL, age 72, died at his home in Mulberry February 28th. Born in Scottsville, Arkansas, March 6, 1876, he began practice at Mulberry in 1900. He was a member of the Crawford County Medical Society and of the Arkansas Medical Society. Surviving relatives are his wife and three children.

RAYMOND W. WHITTIER, age 58, Little Rock, died March 1st. A graduate of the University of Minnesota Medical School in 1912, he served 27 years with the army medical corps and retired with the rank of colonel in 1943. He engaged in the practice of ophthalmology and otolaryngology in Little Rock during 1944 and 1945 and retired a few months ago because of failing

health. He was a member of the Pulaski County Medical Society and of the Arkansas Medical Society, a Fellow of the American Medical Association and of the American College of Surgeons and a diplomate of the American Board of Ophthalmology and of the American Board of Otolaryngology. Surviving relatives are his wife, two sons and two daughters.

JAMES FRED HAYS, age 72, Augusta, died March 13th. Born in Titusville, Pennsylvania, he came to Arkansas at an early age and taught school in Ellsworth Academy, Ellsworth, which was established by his father. He graduated from the College of Physicians and Surgeons, Little Rock in 1907 and practiced first at Russellville. He had been engaged in public health work for the past 18 years, being one of the first doctors in the state to take up public health work as a career. He served overseas in World War I and had held a commission as lieutenant-colonel in the medical reserve corps. He was a member of the Masonic and Woodmen of the World lodges and of the Methodist church. Surviving relatives are his wife, two daughters and two sons.

WOMEN'S AUXILIARY NEWS

The Woman's Auxiliary to the Pulaski County Medical Society held the February meeting at the home of Mrs. Hoyt Choate, 1100 Kavanaugh Blvd, with Mrs. Harry Hayes, Mrs. John Roberts, Mrs. John E. Parsons, Mrs. Robert Thompson and Mrs. Chas. P. Wickard serving as co-hostesses.

A delicious luncheon was served to 55 members and guests present.

Guests introduced by Mrs. Charles R. Henry, president, were Mrs. E. L. Thompson, State President of the Auxiliary to the Arkansas State Medical Society; Mrs. Frank Burton, President of the Woman's Auxiliary to the Garland County Medical Society; and Mrs. H. W. Wright, Secretary of the Auxiliary to the Arkansas State Medical Society, all of Hot Springs.

Mrs. V. T. Webb, treasurer, reported a balance on hand of \$86.74. She announced that 103 members had paid their dues.

Reports of committee chairmen were given.

New members introduced were Mrs. A. M. Washburn and Mrs. Bert Phillips.

Mrs. Ben Means and Mrs. Gordon Oates were appointed to serve on a committee with Mrs. R. T. Smith, who is state legislative chairman, to contact the Executive Board of the local Y. W. C. A. to protest against their endorsing the

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Wagner-Murray-Dingell Bill. Also, letters are to be sent to the president of the local Y. W. C. A. and to the president of the national Y. W. C. A. protesting their endorsing the Wagner-Murray-Dingell Bill.

Mrs. E. L. Thompson, State President of the Auxiliary to the Arkansas State Medical Society, gave an excellent talk on "Being A Doctor's Wife."

Mrs. Fred H. Krock will head the Auxiliary of the Sebastian County Medical Society for the next year, succeeding Mrs. D. W. Goldstein, president, who automatically becomes vice president; Mrs. W. F. Rose, Auxiliary publicity director, reported.

Mrs. Krock was elected at a luncheon and business session of the Auxiliary March 11, 1946. Luncheon was served at 12:30 with Mrs. Everett Moulton and Mrs. S. J. Wolfermann, hostesses.

The slate prepared by the nominating committee, Mrs. B. L. Ware, chairman, and Mrs. S. J. Wolferman and Mrs. D. W. Goldstein, was unanimously accepted at the business session at which Mrs. Goldstein presided.

In addition to Mrs. Krock and Mrs. Goldstein, officers are Mrs. Kenneth Thompson, secretary, to succeed Mrs. M. E. Foster, and Mrs. H. H. Smith, treasurer, to succeed Mrs. Walter G. Eberle. The new officers will be installed at the May meeting of the Auxiliary.

Delegates and alternates were named for the meeting of the Arkansas Medical Society Auxiliary in Little Rock April 15 and 16. Mrs. Kenneth Thompson and Mrs. Walter G. Eberle were named delegates; Mrs. Stanley Gates and Mrs. J. S. Southard, alternates. Mrs. Goldstein and Mrs. W. R. Brooksher are delegates by virtue of their offices.

The state meeting is in conjunction with the state meeting of the Arkansas Medical Society.

The Auxiliary will entertain at a picnic supper in observance of "Doctor's Day," at the country home of Dr. and Mrs. Walter G. Eberle.

At the conclusion of the business session, Mrs. Goldstein turned the meeting over to the program chairman, Mrs. Everett Moulton, who presented the speaker, Major Stanley Gates, medical officer of the sub-regional office of the Veterans administration in Fort Smith, who explained the "Medical Functions of the Veterans Administration Program."

Members present were Mrs. Goldstein, Mrs. M. E. Foster, Mrs. Everett Moulton, Mrs. H. H. Smith, Mrs. H. B. Thompson, Mrs. S. P. Stubbs, Mrs. J. S. Southard, Mrs. Stanley Gates, Mrs. I. Fulton Jones, Mrs. Fred H. Krock, Mrs. B. L.

Ware, Mrs. Kenneth Thompson, Mrs. Walter G. Eberle, Mrs. S. J. Wolferman and Mrs. W. F. Rose.

The Auxiliary of the Sebastian County Medical Society met February 11th for luncheon, business meeting and program. Mrs. Fred Krock and Mrs. Charles T. Chamberlain were hostesses.

The president, Mrs. Davis W. Goldstein, conducted the business meeting. Auxiliary members voted to renew the annual contributions as follows: Subscription to Hygeia, official publication of the American Medical Association; contributions to the Girls' Club, Carnegie Library, Young Women's Christian Association, Rosalie Tilles Children's home, and Booneville and Wildcat sanatoriums.

A nominating committee was appointed to prepare a slate for election of officers, to be presented at the March meeting of the Auxiliary. Mrs. B. L. Ware is chairman, and other members are Mrs. S. J. Wolferman and Mrs. Davis W. Goldstein.

At the conclusion of the business session, Mrs. Goldstein turned the meeting over to the program chairman, Mrs. Everett Moulton, who presented Mrs. H. H. Smith. The latter discussed "The Human Interest Angles of a Diagnostic Clinic for Cancer."

Auxiliary members present were Mrs. D. W. Goldstein, Mrs. Fred Krock, Mrs. Charles T. Chamberlain, Mrs. S. P. Stubbs, Mrs. I. Fulton Jones, Mrs. J. S. Southard, Mrs. Walter G. Eberle, Mrs. Everett Moulton, Mrs. H. B. Thompson, Mrs. B. L. Ware, Mrs. S. J. Wolferman, Mrs. Kent Thompson, Mrs. H. H. Smith and Mrs. W. F. Rose, publicity director.

The Woman's Auxiliary to the Garland County Medical Society met January 28, 1946, at the Arlington Hotel, Hot Springs, Arkansas, and had election of officers. The new officers are as follows:

President, Mrs. Frank Burton; Vice-president, Mrs. Richard Daniels; Recording Secretary, Mrs. J. O. Boydstone; Treasurer, Mrs. H. K. Wright.

The group was addressed by Mrs. E. L. Thompson, State President of the Auxiliary. Plans were made for monthly meetings.

The Auxiliary will concentrate on legislation affecting the medical profession and in addition will continue its efforts in connection with the cancer control campaign.

Mrs. W. F. Rose, Publicity Chairman Auxiliary of the Sebastian County Medical Society.

The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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LITTLE ROCK, ARKANSAS, MAY, 1946

No. 12

THE DEVELOPMENT OF PREPAYMENT HOSPITAL AND MEDICAL PLAN*

J. WILLIAM THOMPSON, M. D.

Saint Louis

Contrary to popular belief, the use of the insurance principle in meeting the financial costs of health is not new. It has been done in this country since 1798 when, under the auspices of the United States Public Health Service, our merchant seamen began a payroll deduction plan to provide for their needs when they were unhealthy, or sick. Since that time thousands of organizations from lodge groups to shoe factories have employed the principle for mutual benefit in softening the blows of misfortune due to illness or calamity. These projects have all been undertaken on a purely voluntary basis. The initiators of these were either groups of individuals or an employer who was interested both in sustained production and the well-being, from a human standpoint, of those workers who kept the wheels turning.

Quite frequently there were disputes about rights and prerogatives of the insured as to benefits and selection of a family physician, but by and large much good was accomplished for all concerned. No human institution will ever be perfect, yet these voluntary associations set out to do a job, and within limitations, have survived and succeeded very well, so well in fact that groups of all sorts have sought to utilize the insurance principle in protection from the numerous hazards of human experience. One notes this in life insurance, fire and tornado, automobile, casualty, indemnity and scores of other types of protection. Why not then apply to all the hazards of human experience this principle of alleviation of financial distress by spreading the cost over a large group? Obviously, it is such a good idea that politically-minded men have in the past century seized upon it, in all sincerity, as a great boon to the masses of humanity where they exist in civilized units subjectable

to taxation. Bismark and Lloyd George in Germany and in England were the first statesmen to grasp opportunity by the forelock. Now in the United States we have political opportunists who seek acquisitive power over the lives of the people, attempting to seduce the mass mind into acceptance of something which is good in principle but which they seek to secure through the compulsory power of taxation, but which they term by some form of semantic hocus pocus as "contributions." The power to tax is the power to destroy and, unless we of the medical profession grasp time by the forelock and assume leadership in the social and economic thinking of our country, we are doomed to the slavery of compulsion. The very word compulsion is anathema to all those who love liberty and freedom. To compel is to enslave and let those who indulge in the semantic babel of confusion try to dispute this. Our present-day moulders of thinking are all too frequently given to expression of ideas which are wolves in sheep's clothing. It is time to return to incisive thought to get at the meat of the philosophies which are in conflict in this modern world. It is time to call the skunk a "skunk," and not an "attractive little mammal whose scent glands are his sole means of defense and protection." Let us face the facts of life as they are and immediately seek means to improve the lot of mankind in accordance with the principles of liberty, equality and fraternity; of life, liberty and the pursuit of happiness. When these immortal words shook the foundations of an autocratic and totalitarian world mankind was once more in a great period of transition, of evolution and revolution. Out of decades of travail came, by a voluntary federation of states, a great nation which now is again in travail because the old world is so slowly catching up with the new that mankind, in the vain hope of security, is casting backward glances into the dark recesses of totalitarian, securitarian, regimented comfort and enslavement.

Now what has all this to do with the development of prepayment plans? Plenty. I advise you to read the proceedings of the United States Senate Committee on Education and Labor, a condensation of which appears in the April 13,

* Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 15, 1946.

1946, issue of The Journal of the American Medical Association. As you recall, Senator Taft was threatened by the chairman, Senator Murray, with actual physical removal from the hearings, even though he (Taft) is a member of the committee. This attitude is characteristic of the dictators, the little American Hitlers who would make the people of the United States swallow "political medicine" because they think that it is good for what ails them. I believe that the American people cannot be compelled to do anything. Not so long ago (1920) similar crackpots and little dictators thought that they could compel people to be sober. Have any of us forgotten the intervening 13 years until 1933 when the prohibition amendment, the 20th, was tossed into the ash can, and the noble experiment abandoned. The proponents of the Wagner-Murray-Dingell Bill will attempt to beguile us by stating that there is no enslavement of the people or our profession; but read the words of the bill carefully and see how cleverly the bait is disguised by such semantic juggling as to call taxes by that word which appeals to the mind as something done by volition. The word they use is "contribution." I say it is taxes on all the productive energies of the people to build up the greatest bureaucratic gravy train ever conceived in the mind of a political dictator; an instrument of public power and policy which can lead only to a surrender of the inalienable rights guaranteed by our Declaration of Independence, our Constitution and the Bill of Rights. Shall we have won a world war for the principles of freedom, and there is only ONE all-embracing meaning of that word, only to become slaves to a securitarian ant-like system of regimentation.

"Millions for defense but not a cent for tribute." To paraphrase that idea, let us give freely of our resources of mind, spirit and money to accomplish social, political and economic advancement of man. But let us do it on a basis of voluntary collaboration and experimentation while preserving our liberties and way-of life.

The American Medical Association through its Council on Medical Service and Public Relations and through collaboration with the National Physicians Committee, an independent organization, has conducted surveys all over the nation on the desirability of establishing prepayment plans for meeting the cost of catastrophic illness, the only kind that has disastrous economic implications. The American Medical Association has quite recently taken official recognition of the enor-

mous demand for, and growth of, such voluntary organizations. There will be methods and practical means of co-ordinating all these plans on a basis of uniformity of policy and administrative practice. These organizations are all non-profit corporations set up purely in the interest of providing services to the sick. There should not be a profit motive, per se, from the standpoint of the Christian ethics in the human relationships of birth, sickness and death. The greatest rewards to every doctor are not those of pecuniary profit, but those of the soul of man. A pin-headed politician cannot appreciate this spiritual value. Witness the statement of Hon. J. D. Dingell, who speaks of the activities of the American Medical Association and the National Physicians Committee as "poison gas designed for the sole purpose of confusing and misleading the American people in order to preserve the monopoly which it exercises over the health of the American people." The mind, which could conceive of that statement, could never appreciate the soul-filling rewards seen in a mother's eye when the humble country doctor places her babe at her breast, after hours of travail, pain for the mother and all too frequently crushing responsibility for the doctor; because, let something go amiss and the mother and babe may both leave behind a bereaved father and mourning brothers and sisters; a family forever disrupted. Who can conceive of anyone wanting a monopoly on such soul-searching responsibilities? Yet, Mr. Dingell and his ilk would lead us to believe that all this can be changed by just passing laws, that one can legislate brains, and ability, and integrity and devotion to duty, into the hearts and minds of men.

In the natural course of events, the Saint-Louis Medical Society and the Missouri State Medical Association became interested in voluntary prepayment plans to provide for hospitalization and surgical medical care in the hospital. Our group hospital plan has now 750,000 participating members and is about to celebrate its tenth full year during which it has paid out ten million dollars in benefits to patients. This is a record of which to be duly proud.

I came here to relate to you some of our experiences in establishing our prepayment medical plan in Missouri, which will be coordinated through the good offices of the American Medical Association by virtue of recent progressive action, with other plans throughout the nation.

The Council of the Missouri State Medical

Association established a committee on post-war planning. This committee was charged with responsibility for providing a workable plan for better and more complete medical care than had been provided in our state in the past. Part of the committee's program was to study the future needs of our people, the hospital needs of our state, and to evolve a plan of providing more doctors of medicine and more and better hospital facilities, especially for people in our rural areas.

The preliminary survey of conditions about medical care, such as the distribution of physicians, provided some very interesting information. For example, it was found that the population of Missouri increased 13% from the period from 1910 to 1940. The rural population did not change during that time. The number of physicians decreased 10.8% in the entire state. However, when rural areas alone are considered, the number of physicians in active practice has decreased 44%. The total number of physicians actively engaged in practice in Missouri in 1934 was 3,092. Of these 587 were practicing in Jackson County (Kansas City), 1,372 were practicing in Saint Louis and 1,133 were scattered throughout the remainder of the state.

It is obvious that our efforts and plans should be directed toward the problem of securing more doctors for rural areas. This can be done if more and better hospital facilities are provided in rural areas. The hospital is of paramount importance in providing medical care for the rural population. Few people realize that in Missouri there are 72 counties with a total population of 1,004,126 people without a hospital bed for the general care of the sick. Perhaps 90% of the patients are properly cared for in their own homes or physicians' offices. However, the remaining 10% badly need hospital and laboratory facilities. Hospitals definitely are the key to the rural care of the sick and they are a local community responsibility. What better post-war projects can be found than the erection of new hospitals, or additions to already existing facilities, which will bring to all the people the best in medical service?

The organized medical profession is interested in the economic side of medicine. For several years the Missouri State Medical Association through its committees was at work on various plans for the prepayment of medical and surgical expenses. At the annual session of our association in April, 1944, the House of Delegates

unanimously adopted a plan for prepayment medical and surgical care. This plan has now been in operation just one year. We have approximately 40,000 subscribing members. We have a reserve fund of over \$55,000 and our expectancy of liability is much smaller than was anticipated. You are all familiar, I am sure, with the group hospital or Blue Cross Hospitalization Plan which for small monthly payments provides certain specified benefits. We have recently extended our benefits to 60 days. We began with 21 days. The Blue Cross, it will interest you to know, now have approximately 750,000 persons enrolled and has paid out \$10,000,000 benefits in 10 years. Our plan, known as the Missouri Medical Service, is administered by the Blue Cross. They sell the contracts and do other office routine for Missouri Medical Service. The plan provides for the subscriber and family a schedule of benefits covering surgery, obstetrical services and treatment of fractures, as well as medical care in hospital cases.

The Missouri State Medical Association hopes that through the extension of these voluntary plans, such as Blue Cross and Missouri Medical Service, that eventually all persons in Missouri will have the opportunity to insure against the hazards of health.

I am informed that the Arkansas Medical Society has, in its House of Delegates, passed a resolution, empowering its Council to study these plans with a view to their establishment in Arkansas. You are to be congratulated. There are, however, many contingent responsibilities. They will require an efficient, central administrative organization, including persons experienced in affairs of this nature. You will require an executive secretary with both a layman's and the professional comprehension of the many problems involved. A public relations program is quite important. The people must be told what you are doing in their interest. This is vitally important if you are to secure their collaboration, and labor is the precise word. It will require lots of work. It will require money. I understand that there are approximately 1,100 doctors who are members of the Arkansas Medical Society. I would suggest a fund of at least \$25 per member, or \$25,000 as the minimum requirement to set the administrative machinery in motion, if you are to start from scratch. We were fortunate in Missouri to have an efficient executive secretary and state office personnel. Our Missouri Medical Service was started on a \$5,000 loan from the State Association. This

has been repaid at a recent annual meeting, the first since the cessation of hostilities.

Obviously, all of this will mean some sacrifice financially, as well as of time and spirit. I assure you that it will be worth it. I consider these sacrifices as an obligation to the people. We medical men must never forget that we are of the people and are morally, legally, and scientifically dedicated to the advancement of the good of mankind. Lest we forget, let us get on with the work.

The propagandists who will beguile us into enslavement have little regard for accuracy and preciseness when presenting arguments as to why in their opinion a national health program of political medicine should be foisted upon the people of this country. They tell us how the army was almost wrecked by the great numbers of physically unfit, and ipso facto, blame our system of rendering services for the defects. So they want to wash the baby down the drain with the wash water.

One of the chief reasons for the impatience and urgency of present thinking about the problem of medical care is the shock the country felt when results of Selective Service medical examinations were made known. Rejections have totaled some 5,000,000. Or, as President Truman has put it, "30 per cent of American young manhood has been found physically unfit to bear arms."

The widest publicity has been given to these statistics. Political leaders have used them as arguments for numerous proposals for immediate action. Newspapers have based editorials on them, urging prompt government intervention to correct so patent an evil. Public opinion has been shocked and stunned.

But very little effort has been made to analyze Selective Service results to arrive at a precise objective indication of their meaning. It is simply assumed that the problem of the 30 per cent rejected in the draft is a problem of medical care.

Study of the facts will indicate that it is nothing of the sort. Let us take the rejection figures as of May 1, 1944. At that time, of some 13,000,000 examinations, there were 4,049,000 rejections.

Of the 4,049,000 total rejections 1,220,400, or 30 per cent, were for mental disease and mental

deficiency. It is apparent at once that this group, nearly a third of the whole, are not a medical problem at all. Here is a matter rather of eugenics, of heredity, and of environment.

Included in the group of mentally disqualified are men rejected for illiteracy and educational deficiency. Of the first 1,000,000 total rejections, 100,000 were caused by inability to read. Here is a problem, to be sure, but is it a medical one?

Returning to our 4,049,000 total rejections, we learn that 425,700 were caused by manifestly disqualifying defects, that is, blindness, deformity, etc. It is very questionable that many of this group would be reached by any presently possible program of medical care. They are more than 10 per cent of the total.

Another 303,500 rejections were for musculoskeletal defects, for example, paralysis, withered members, congenital dislocations and the like. Most of these are beyond the help of medicine in its present development. They are 7 per cent of all rejections.

Rejections for syphilis totaled 286,800, about another 7 per cent of the total. There is hardly a community in the United States where free treatment for syphilis is not available. It is evident, then, that this disease is a problem not so much of medicine as of sociology.

Hernia accounted for nearly 6 per cent of total rejections. The statistics show 229,000 cases. The occurrence of hernia is very preponderantly congenital and has nothing to do with medical care or the lack of it. It is a defect which in most cases is remedial, but many of those rejected for military service for this cause preferred not to have so convenient a disability corrected. In a free society no one may be compelled to accept medical advice.

Defective vision caused 206,100 rejections, or 5 per cent of the total. The ability to see correctly is largely determined by the shape of the eyeball at birth. Aside from providing glasses, an expedient not desirable for combat soldiers, there is little medical science can do to correct faulty eyes. Selective service examiners required that eye tests be taken without glasses.

Adding up the rejections in the above categories we get 2,671,500, which is some 65 per cent of the 4,049,000 total. It becomes clear that Selective Service rejection statistics are not half the compelling argument for revolu-

tionary action in the field of medical care as they appear at first glance.

When some account is taken of the perfectly obvious fact that a great many young men were examined, and rejected more than once, the validity of the Selective Service argument is even more reduced. One hernia, for example, might well have been the cause of two or three rejections, every one of which appears in the figures as a separate instance.

In the last analysis, then, it is important to use Selective Service findings with a great deal of caution as an argument for drastic medical planning by the Government. In their new, uninterpreted form, these figures have been used by some as an indictment of the medical profession in America.

What is needed is much less loose talk about the medical neglect of a third of the nation's young manhood and a great deal more honest inquiry into the whole problem of developmental defects. These lie largely outside the present scope of medicine.

It is something less than realistic to expect that a solution can be legislated in terms merely of a government scheme for medical care. There is danger that, in the hasty legislating of excessive demands for medical care, we may interfere with the normal development of medicine and even reduce the quality of the care now provided by the profession. Certainly, the greatest heed should be paid to the experience and judgment of practicing physicians who, if anyone, ought to know what medicine's reasonable contribution may be in solving the whole complex of developmental deficiencies in America.

In conclusion, let me urge the members of the Arkansas Medical Society to make a concerted effort to preserve the basic features of our present system of the practice of medicine. Let us fight to preserve the ancient tenets and the time-tested traditions of the individual patient-doctor relationships, and forever be on guard to prevent our enslavement along with all the rest of the people by crackpot reactionaries who would discard freedom and plunge us back into social and economic systems characteristic of the dark ages.

We, in this country, must take renewed inspiration from the past and take up our cudgels whenever necessary in the defense of the principles of freedom, of life, liberty and the pursuit of happiness.

THE MICHIGAN STATE MEDICAL SOCIETY'S PLAN FOR PROVIDING MEDICAL CARE FOR BENEFICIARIES OF THE VETERANS' ADMINISTRATION*

HARDY A. KEMP, M. D.
Detroit

On January 6, 1946, the Michigan State Medical Society, through the Michigan Medical Service, signed a contract with the Veterans' Administration whereby home and office medical care of veterans for service-connected disabilities may be given by the veteran's own doctor of medicine in his own community. It is a project which merits the close attention and critical study of every doctor of medicine in the land. This state-wide plan, the first state-wide in the United States, marks a great step in the Veterans' Administration's program of decentralization and at the same time recognizes and emphasizes our traditional physician-patient relationship, which have been the lodestone in the development of our system of medical care, medical research and medical teaching, the greatest in all the world.

II

First and last, this plan was developed to meet the increasing dissatisfaction with the medical care of veterans. It was designed to obviate long and expensive trips to distant veterans' hospitals, to overcome the impersonalization of institutional care, and to provide medical care within weeks instead of months or years. Obviously, home-town care will eliminate the almost interminable wait for hospitalization and also the prolongation of this hospitalization in lieu of out-patient care, where, indeed, many veterans' hospitals are unable to provide out-patient care and where under such circumstances a patient is kept occupying a bed when he could be better handled as an out-patient. All this considered, the Michigan plan can be expected to release critically needed beds in veterans' hospitals.

While all these factors are in themselves of considerable importance, and, while they are set up to meet, directly, certain critical needs, the plan goes deeper into the structure of our natural economy. Doctors of medicine, of all people, are and have demonstrated themselves to be those best qualified to meet and solve the prob-

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lems which arise from human behavior. That is our every-day job; and in it we are as much concerned about the promotion of our nation's general welfare as we are of the latest technical advances in our highly professionalized field. Therefore, medicine everywhere, not in Michigan alone, recognizes in the problems of medical care for veterans, certain profoundly important elements in the vast re-adjustment we must all undergo as the inescapable sequel of a second and far more destructive world war.

We in medicine recognize that veterans of all wars will prosper only as our democracy prospers, because we hold that a veteran is a citizen who has been to war, and that he is a citizen first, and a veteran second, and when, and only when, he gets to the stage in which he thinks of himself as a citizen first and a veteran second can his adjustment be said to be complete and that he is again integrated into his community. We are therefore sincerely concerned with the re-establishment and the maintenance of those relationships upon which our nation has grown strong. Since we are convinced that a strong and independent future will continue to rest upon time-tried channels of independence in personal thought and action. To this end, Michigan-medicine has stepped into this problem with a plan definitely designed to foster and encourage the private practice of medicine and thus minimize and discourage schemes for legislated health.

III

This present plan is not to be confused with the insurance, or so-called pre-payment plan of the Michigan Medical Service. What it actually amounts to is the purchase of medical service by the Veterans' Administration through the Michigan Medical Service which acts as a central fiscal agency to relieve doctors and the state society from unnecessary bookkeeping. The Michigan Medical Service is an organization operated by the Michigan State Medical Society and after more than five years of experience now has about 875,000 subscribers to a voluntary health plan with about 3,000 doctors participating in this service. The Michigan Medical Service is an organization of doctors working for doctors, all with a primary purpose of furnishing medical care on an insurance basis to subscribers through the state of Michigan. In the veterans' care plan, however, the Medical Service acts only as a clearing agency which pays the doctor for professional care rendered to veterans and in turn bills the Veterans' Administration for this

medical service. At the moment, the Veterans' Plan has none of the aspects of insurance plans, nor is hospitalization included. Moreover, it is not restricted to those doctors who agree to furnish service. As a matter of fact, the Michigan Medical Service will handle the account of any member of the Michigan State Medical Society, whether he has agreed to participate in this service or not.

The operation of the plan is simple indeed. Any veteran who has a service-connected disability needs only to secure authorization for care and treatment from the regional veterans' authority so that the doctor of his choice may institute the care and treatment indicated. Usually this authorization is obtained by mail, although in emergencies veterans are authorized to call the regional veterans' facility by long distance collect for the same purpose. In instances where there is any question of service-connected nature of the disability the veteran may visit the regional authority where an outpatient clinic determines by physical examination the nature and extent of his need for medical care, which later can be used in his home town as befits his case. However, it is not necessary for the veteran to visit a regional office; he may upon request secure authorization for examination by the doctor of his choice. The Veterans' Administration later determines the basis of this examination whether the disability is service-connected or not. Treatment may be provided while this is being determined. In all instances, as has been indicated above, the home-town doctor bills the Michigan Medical Service which in turn bills the Veterans' Administration.

The development of this plan was by no means so simple as its operation. In the first place a uniform fee schedule had to be adopted. This schedule had to be acceptable first of all to the practitioner and secondly to the Veterans' Administration itself, and this was no small job. In all frankness it must be said that the majority of medical practitioners have not been trained or conditioned for such things. On the contrary, the practice of medicine has always been based upon the individualization of fees; and medicine has always resisted and rightfully so, any attempts to regiment its practice, particularly through the fixing of monetary remuneration for services. It is obvious as well that fees will vary in different localities: what is an adequate fee in country practice would not be reasonable under urban conditions, and the opposite is true wherein fees obtained in urban centers are some-

times twice or more than that of those in rural communities. Some adjustment therefore has to be made and it is now always possible to reach unanimous agreement on this point alone. Nevertheless, all governmental agencies have insisted that the purchase price of medical service must be something definite, and not an unknown quantity. Whatever the difficulties, be it said that the fee schedule adopted by the Michigan State Medical Society was not below the average practice price but actually is the average practice price. At the same time, it does not appear that this fee schedule has in any way limited the fees of private practitioners in their private practice where there is any reason or indication for larger amounts to be paid. By the same token, the private practitioner of medicine in Michigan is still able to exercise his ancient and honorable right to extend charity to those for whom he considers charity, either temporary or otherwise, a better remedy than governmentally imposed indigency. In any event, the uniform fee schedule adopted by the Michigan State Medical Society is such that Michigan doctors are no longer penalized by being forced to perform services at a financial loss. Another important feature is that the free choice of doctor, and the free choice of patient is preserved in our contract.

From the standpoint of the Michigan State Medical Service itself, little difficulty is being encountered. In starting the plan, Michigan Medical Service was allowed 7% for handling costs, although this was based on estimate alone; and it is expected that once the actual cost is established that this figure will be nearer 4% of the fees collected. At present, there is little time lost in the handling of paper work, as far as doctor fees are concerned. Many of our doctors are slow in sending in their bills; they are everywhere; however, the Michigan Medical Service is most prompt in rendering payment, the average time being only 48 hours from the time the bill is received in the offices here in Detroit. Just now most of the work is authorizations and Michigan Medical Service is handling 350 to 450 authorizations every day. These authorizations are largely examinations for the purpose of establishing service or non-connected service disabilities. The average fee for these examinations is about \$15.50 and usually represents two or three separate items. These items are set up on the uniform agreed schedule, which ranges from a routine office examination of \$3 to ventriculography, not including X-ray at \$40; combined eye, ear, nose and throat at \$50;

neuro-psychiatric examinations at \$10; general routine physical, \$5; and electrocardiogram with interpretation, \$10. These are some examples of examination fees here in Detroit.

The promptness of the Veterans' Administration offices in Detroit is to be highly complimented in connection with the handling of authorizations. At the beginning certain administrative channels had to be worked out, but at the present time the offices of the Veterans' Administration and the offices of the Michigan Medical Service is a very close one and approval of requests for examination and treatment are sent both to the veteran and the Michigan Medical Service simultaneously. In this way, when the bills come in from the doctor, the Michigan Medical Service already has a file started and the authorization on hand and are therefore able to render payment in the prompt manner described above.

IV

As to future possibilities, the most important one at the moment is that of the development of a plan for hospitalization of veterans in their home town for their service-connected disability. Here, again, this is not so easy as it might seem, and it is to be noted with sincere regret that individuals not professionally associated with the practice of medicine have, through their non-professional views, succeeded in forestalling a hospital plan similar to that of the practice plan. This came about through their insistence on the adoption of a scheme whereby the hospital would be allowed to include fees over and above the usual hospital service to be paid for. This, the Michigan Medical Service flatly rejected. Whether this scheme was an entering wedge to allow hospitals governmental support or otherwise to practice medicine under the guise of rendering hospital care is not clear at this time. There was little doubt in the minds of our representatives, however, when this was under discussion in Washington. At any rate, this plan for home-town hospitalization has been held up for the past six months for just this reason. At this present time it is not known just when, if ever, this problem can be adjusted in spite of the fact hospitalization at home would in many cases remove the curse of institutionalization and would provide a patient not only his free choice of doctor but his free choice of hospital as well.

As for other possibilities, it may well be that our experiment in Michigan will revise the whole operating philosophy of the Veterans' Administration medical service, to the end that each vet-

eran might yet receive a comprehensive medical insurance policy which would take care of his ordinary needs and thus the present Veterans' Administration hospitals could be used for highly specialized medical care and the veteran in his home town could continue with his free choice of physician just as any other civilian. The few exceptions to the plan as it is now in operation might be taken as the beginning of a trend in this direction. For example, there are two instances of authorization for the care of the children of totally disabled veterans. Moreover, authorization, for instance, has been obtained and treatment given to a few female veterans for non-service connected disabilities. These, however, actually amount to isolated instances compared with the bulk of the work done. At first, all of this was rejected by the Veterans' Administration and the Michigan State Medical Society, but the Michigan Medical Service took the position that they are allowed to pay on any authorization however it is obtained and certain participating member-physicians accepted the case and charged the uniform fee schedule. Nothing, as yet, has been done to regularize these practices and so far they have been too few to call for executive action. They may, however, be the proverbial straws in the wind. Whatever the implications or consequences, the important thing is that the Michigan Medical Service and the Michigan State Medical Society have expressed themselves as ready to undertake the operation of a medical insurance plan paid for by the Federal Government and designed to provide full medical service for veterans as long as such a plan would be set up, operated and maintained by doctors and for doctors, specifically, the Michigan Medical Service, which is actually the Michigan State Medical Society. This indeed is a bold offer to undertake when one considers the large proportion of our population identifiable as veterans. The Michigan State Medical Society, however, expresses no great alarm that the membership would be regimenting themselves, or would otherwise be guilty of stultifying the private practice of medicine. Instead, they hold to the idea that as long as the practice of medicine, whether on an insurance basis or not, remains in the hands of those who actually practice medicine, medicine should have no cause for alarm. In our case there is an additional aspect and one of real importance in this same connection. The Michigan Medical Service, while in effect a subsidiary of the Michigan State Medical Society, is not, after all, the entire membership of organized medicine in the State of Mich-

igan. Several hundred members have indicated no desire to participate in this plan and, while in this light they might represent the Society's "loyal opposition," they do represent, first and last, the practicing profession and they are so in a position to have their expression in the policies of the State Society, whether they participate in the activation of these policies or whether they do not. This stands in laudible contrast to commercial insurance plans set up and maintained in operation by lay individuals whose primary object is to show a profit at the end of any given fiscal period. We are first to admit that commercial insurance companies handling the voluntary contracts of the private individual have gone a very long way toward meeting some of our most distressing problems in the practice of medicine, but given opportunity through total or nearly total coverage, these companies are in a position to make compulsory their own ideas as to fees paid and services rendered.

And thus, since all totalitarian systems tend to become compulsory, nothing less than operation and control by medical practitioners through their own agents can be expected to succeed in the rendering of proper medical care.

A plan of this kind, i. e., the Michigan State Medical Society plan, cannot be forced upon the medical profession where a state society undertakes to make such a plan state-wide in its operation, and for those who would at first regret it. Any state society would do well not to discriminate against certain of its members who for one reason or another feel that they cannot subscribe to its principles or accept, for example, a uniform fee schedule. At the start of our plan, the Genesee County Society refused to have any part of it. The Genesee County Society is an important factor in the state medical organization and lists among its membership some of Michigan's outstanding practitioners. Flint, the county seat of Genesee County, is famous not only as an automotive center but as a center for medical practice as well, and it was with some trepidation that the state society went ahead in face of vigorous opposition from the Genesee County membership. The state society, however, did not discriminate against its members in Genesee County, but, on the other hand, extended to them and to others the privilege of billing the Michigan Medical Service for work in connection with this plan and fostered through the Michigan Medical Service the payment of all such bills. In the few months the plan has been in operation prac-

tically all of the members of the Genesee County Society have voluntarily taken their part in the program. The membership of the Genesee County Society is not held up as a horrible example, but is mentioned here only to emphasize the need for voluntary cooperation and to emphasize again never force any scheme of regimentation upon the medical profession, instead allow time and opportunity for trial and, indeed, error in the development of a plan workable and useful for all.

VI

In conclusion, it may be pointed out again that Michigan's plan for the care of the veteran for service-connected disabilities is of far more consequence than the mere arrangement for the handling of the residue of service-connected disease and injury. First of all, it is, indeed, a direct refutation of any ideas or notions that organized medicine in Michigan or elsewhere is so hide-bound that medicine cannot meet our changing scene. Michigan's plan goes deeper than the exigencies of the moment than that. The Michigan plan recognizes and undertakes the reintegration of the citizen soldier or sailor into his own community. In that Michigan's major premise is the medical profession's determination that every man or woman who has experienced military service must be brought as directly and as evenly as possible toward his or her own complete realization that he or she is a citizen first, a veteran second, and a ward of the Government never at all.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum (or Pabena) can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee of the Heart

Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman

Ft. Smith

The Clinical Recognition of Coronary Artery Insufficiency

The term "coronary artery insufficiency" or the shorter term "coronary insufficiency" has become the most widely acceptable functional description for syndromes resulting from an imbalance between coronary arterial blood supply and myocardial requirements. Another explanation has been offered for anginal pain, namely, that it arises from stimuli originating in the walls of the coronary arteries themselves, rather than from the myocardium. At present, this seems a less likely mechanism than anoxia.

Anoxia of the heart muscle may result from conditions not related to primary atherosclerosis of the coronary tree, such as obstruction to the coronary ostia, high degrees of anemia, increased metabolic demands, as in severe exertion (even in youth), or thyrotoxicosis. Such conditions are usually obvious and demonstrable. They are not conventional parts of the pattern of coronary arterial disease which carries with it the threat of sudden death, except as they may complicate coronary atheroma or fibrosis.

The term "coronary insufficiency," as used in this paper, implies degenerative arterial disease. In its incipency, at least, and often in well-developed cases, it is not obvious, nor, in the main, is it manifest through any objective technic. Indeed, of the potentially lethal disabilities, early coronary insufficiency may be considered the most subjective of all.

Clinical Types of Coronary Insufficiency

Myocardial anoxia in the presence of coronary narrowing may be transient, may be excited by a temporarily excessive demand upon the muscle and may not be associated with structural change in the myocardium. All gradations occur, however, up to the point of myocardial infarction without coronary occlusion, or, finally, to exten-

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

sive infarction and myomalacia following closure of major coronary vessels.

Clinical responses to this process of ischemia may be classified as (1) asymptomatic degeneration, (2) angina pectoris, (3) congestive heart failure, (4) acute myocardial infarction and (5) disturbances of rhythm and conduction. It is recognized that there exist variations of coronary insufficiency permitting a classification of greater detail in the zone between a short attack of angina pectoris and a prolonged seizure of acute myocardial infarction. The diagnosis of the lesser degrees of injury rests largely upon electrocardiographic evidence of negative displacements of the S-T interval during the attack rather than upon the development of the typical changes of myocardial infarction.

There is no great value in attempting too explicit an analysis of these degrees of ischemia since the prognostic import is never definite—patients die of angina pectoris without coronary occlusion and often survive massive coronary closure. The clinical evaluation is the best guide. Regardless of the electrocardiographic findings, patients, in general, do best who do not develop cardiac enlargement, tachycardia or gallop rhythm following prolonged anginal pain.

Asymptomatic Degeneration of the Coronary Arteries

It may be paradoxical to refer to asymptomatic pathologic changes in the coronary arteries as a clinical response but it is included to point the lesson that high degrees of change may occur in the coronary arteries without symptoms and without producing myocardial ischemia and failure. It is possible to demonstrate calcification of the coronary arteries by roentgenograms during life in individuals free from angina pectoris or congestive signs. In such cases, the coronary arteries are sufficiently capacious to permit satisfactory blood flow to meet the metabolic demands of the particular individual even though they may be rigid and not distensible in the calcified areas. It would seem likely, however, that capillary dilatation is possible distal to these areas with a resulting satisfactory pressure gradient and increase in coronary flow.

Angina Pectoris

The interpretation of symptoms to establish the diagnosis of angina pectoris is one of the most important technics in medicine. It is important chiefly in that it places upon the physician the responsibility for applying to a patient

the label of an unpredictable and fatal disease. Unlike cancer, angina pectoris is not susceptible to chemical, biopsy or surgical confirmation during life. The diagnosis of angina pectoris can only be mitigated by the skillful avoidance of precise terms in discussion with the patient, and the knowledge that its victims may improve and may live for many years with advice and guidance.

Since the diagnosis rests upon the patient's story, and the doctor's translation, it is difficult for the latter to maintain the critical balance between apprehensive overdiagnosis and neglect of significant atypical symptoms.

Pain: All physicians and many laymen are familiar with the classical attack of angina pectoris—pain in the chest with extension to the left arm. Such an attack, however, may not be of cardiac but of radicular origin. It is not, in fact, the commonest premonition of anginal distress. Angina is derived from *angere*—to strangle. The peculiarities of this sensation are that it is a pressure, that it is substernal, that it tends to extend upward, and that it seems to constrict the chest. However, all of these sensations may be mild.

In various patients the sensation may appear as pressure, burning, "raw" feeling, nausea, gas, choking and, less frequently, as pain. No sharp, jabbing, lancinating pain can be considered angina.

The most valuable item in the diagnosis is the substernal position of the distress. The pain, pressure or constriction may originate in the epigastrium, may extend to neck, shoulders, back, arms, wrists, hands, jaw or even the upper part of the abdomen, but at some time in the progress of the attack, in almost all cases, it becomes a discomfort in the middle of the chest. Rarely it remains peripheral, as in patients who have pain in the jaw or the arms on effort. The left arm is often involved but the right arm or both arms not uncommonly. This may be expressed by the patient as a "dead," "weak," or "numb" feeling in the arms.

Precipitants of the Attack

It is a distinguishing feature of angina that it is episodic in nature. It comes in relation to an exciting factor and disappears with its removal. When it does not abate within a few minutes, usually less than three, myocardial anoxia may be presumed to have progressed to a destructive degree, if only at a cytolytic level. The more

sensitive the individual, the greater is the likelihood of minor precipitants being effective and the more prolonged the distress after the acute episode has passed. The commonest factors producing attacks are exertion, emotion, eating and exposure to cold. Smoking appears to induce attacks in some. Such evidence as is available is against use of tobacco in cases of angina pectoris. Coitus often provokes angina and should be inquired about. Nocturnal attacks may be brought on by the recumbent position, presumably by the increased return of venous blood to the heart or by exciting dreams.

The type of exertion responsible for the attack may be relatively specific for a given individual. Walking, especially in the cold, up a mild incline, or after eating, is the most provocative. Use of the arms above the head or even the exertion of shaving will produce distress in some, while others may be able to exercise with their arms without difficulty, yet find walking impossible.

Emotional stress may be a powerful excitant of angina in some people. It need not be of the unpleasant type.

The variability in sensitivity to these precipitants may be striking. Nervous fatigue, worry, excessive use of tobacco or lack of sleep may make the individual much less resistant and, as a result, the attacks may be for a time more frequent or more severe, without necessarily presaging an imminent myocardial infarction or fatal attack.

Other Symptoms and Signs

With an attack of angina, pallor often occurs. Dizziness and faintness, even to the point of syncope, occasionally are present. Palpitation is a rare concomitant but is more often the cause of the pain, through the onset of an abnormal tachycardia, than the result of the coronary anoxia. Dyspnea must be differentiated from the pressure sensation of angina although a severe anginal seizure may precipitate an episode of pulmonary edema. Salivation is an unusual but significant sign. Sweating, on the other hand, is almost always present in all but the most evanescent attacks. Belching is common and may accompany the relief of an attack by nitroglycerin. The *angor animi*, or fear of approaching death, is not often described by the patient in such dramatic terms, but is recognized as a unique sensation so compelling, at times, as to freeze the victim in the path of traffic perils.

Examination of the Heart

It is not the purpose of this paper to describe the abnormalities in the heart which may be found with advanced coronary disease. The more difficult problem consists of the diagnostic criteria of early coronary insufficiency. Unhappily for the diagnosis of angina pectoris, no objective findings exist. In almost one-fourth of all patients with this symptom findings on cardiac examination are normal and in the remainder, the existence of cardiac enlargement, murmurs of cardiac dilatation or gallop rhythm are almost always concomitants of myocardial infarction or fibrosis or of an attendant hypertension.

In other words, evidence of heart disease, manifested by physical examination in coronary insufficiency is graduitous and unexpected. However, there still exists in the minds of many physicians and patients the erroneous belief that by physical examination and electrocardiogram the physician can diagnose coronary disease. When such is possible the disease is far advanced and gross changes in the myocardium are present.

Differential Diagnosis

Attention to details of the patient's history is of the most fundamental importance in the differential diagnosis of angina. It should be the natural desire of the physician to discover some cause, other than coronary disease, for the patient's distress. The commonest of these is the aching precordial pain of nervous fatigue, with or without effort syndrome. Continuous or intermittent, dull or sharp, chest pain which is not precipitated by any distinguishable excitant is not angina pectoris. The causes are to be found in the structures of the chest wall, or pleura, or in the poorly understood inframammary pain of fatigue or apprehension. They are often radicular in distribution. Atypical distress, with emphasis on gastric or epigastric symptoms, should lead to investigation of the gall bladder, duodenum and stomach with a search for peptic ulcer, diaphragmatic hernia or cardiospasm. Even the large bowel, as in diverticulitis, may be incriminated. Cryptic thyrotoxicosis must be kept in mind.

Relief of the attack by nitroglycerin is convincing, but not completely conclusive, evidence of coronary disease, since this drug also relaxes gastrointestinal (especially esophageal) spasm.

Congestive Heart Failure

Congestive heart failure, as evidenced by

dyspnea on exertion, orthopnea, restlessness, insomnia and nocturnal paroxysmal tachypnea with increased venous pressure in pulmonic or peripheral circuits is a commoner response to coronary insufficiency than is angina pectoris. The coronary origin is often established by exclusion of valvular disease, hypertension, thyrotoxicosis, avitaminosis and other less common etiologic factors.

On the positive diagnostic side, the presence of auricular fibrillation, electrocardiographic evidence of conduction defects, or characteristic abnormalities of T waves and S-T segments are strong supports for a coronary anoxic origin of the cardiac failure.

Acute Myocardial Infarction

An attack of anginal pain, not responding to rest, nitroglycerin or other dilators and prolonged beyond a few minutes may be presumed to signalize a degree of myocardial anoxia to the point of destruction of tissue. Such attacks may occur without actual occlusion of a large coronary artery but usually are the result of the blocking by atheroma or blood clot of a small branch of the coronary arteries. The degree of myocardial necrosis is a function of the size of the occluded artery and the immediately available anastomatic circulation.

An account of the clinical syndrome of acute myocardial infarction is beyond the scope of this paper. Such a condition is recognized readily at the present time. The shock, fall in blood pressure, distant cardiac sounds, fever, friction rub and leukocytosis are accompanied by electrocardiographic evidence of major importance. Following attacks of persistent pain of this sort, serial tracings should always be made since characteristic changes may not appear for as much as one or two weeks after the infarction of a small portion of the myocardium.

Disturbances of Rhythm and Conduction

Certain abnormalities of rhythm and conduction, only a few of which are susceptible to clinical diagnosis, are strongly suggestive of coronary insufficiency, in the absence of rheumatic valvular disease, acute rheumatic or other infectious carditis, hyperfunction or hypofunction of the thyroid, or pericardial disease.

Of these, auricular fibrillation, auricular flutter and auriculoventricular block with dropped beats can be diagnosed clinically. Auricular fibrillation is very infrequently found with the anginal syn-

drome. Lesser degrees of auriculoventricular block and intraventricular block are quite common but usually dependent upon electrocardiographic analysis.

Changes in the T waves and S-T segments, unless characteristic of old or recent myocardial infarction, must be interpreted with caution and with due appreciation of the many other factors responsible for such variations.

Stress tests of various types to discover abnormalities in the electrocardiogram, pulse rate or blood pressure when the heart is forced to work under strain will be discussed in other papers in this series.

Summary

The diagnosis of coronary insufficiency of a degree short of myocardial infarction rests, as it did in the days of Heberden, upon analysis of the patient's own story. Physical and roentgenologic examinations are of secondary importance and often valueless. Electrocardiographic study is always indicated but negative findings do not exclude significant coronary narrowing. Coronary insufficiency tends to run its course with exacerbations and remissions largely beyond the influence of our present therapeutic resources. Since the prevention of unnecessary cardiac invalidism in patients is within the control of the physician, the greatest care should be taken to avoid the diagnosis of coronary disease in unimportant functional disturbances of the heart.

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SCHENLEY MARKETS ORAL PENICILLIN

Oral penicillin in two forms is being added to supplies of the drug being made available to physicians and hospitals by Schenley Laboratories, Inc., Dr. Charles E. Dutches, medical director, announces.

Penicillin Tablets Schenley will be supplied in bottles containing 20 tablets of 25,000 units of calcium penicillin each and, at the same time, Penicillin Troches Schenley will be made available in bottles of 25 troches with 1,000 units of calcium penicillin per troche.

Shipments of both items are being made to surgical supply firms.

VOLVULUS OF THE SIGMOID COLON: DISCUSSION AND CASE REPORT

GEORGE C. BURTON, M. D.
Iowa City, Iowa

Although this condition is not common as a type of intestinal obstruction, it is important that every surgeon be familiar with its signs, symptoms, method of diagnosis and treatment. The need for immediate surgery is obvious, particularly if the condition is acute with a sudden onset. The radiographic findings are so striking that they are not easily forgotten and often the diagnosis can be made from only a single supine abdominal film. The following discussion deals primarily with the diagnosis, rather than the surgical management.

Rarity and Etiology

In 458 cases of large bowel obstruction reviewed at Cook County Hospital there were 37 cases of volvulus of the sigmoid colon found. These comprised 2.2 per cent of all types of intestinal obstruction admitted. Some authors quote the percentage as much higher, and the correct figure must lie somewhere between 2 and 5 per cent of all types of intestinal obstruction entering hospitals. It is found to be much more common in Eastern Europe many writers believing this to be due to a predominately vegetable diet.

A number of cases of volvulus of the sigmoid megacolon have been reported; and since megacolon itself is rare, it may be that its presence tends to produce a volvulus. Certainly it is the consensus of opinion that a redundant sigmoid with a long mesentery is a definite etiological factor. Constipation is said to be a contributing factor, but the prevalence of this condition makes such a statement hard to prove. The condition occurs about equally in males and females. It may occur at any age but the majority of the patients are past the age of forty years. Other parts of the colon less often affected in a similar manner are the caecum and ascending portions.

Signs and Symptoms

The onset may be sudden, with severe cramping in the abdomen, fever, and leukocytosis. Such findings characterize the "acute type," in contrast to the "subacute type" which has a slower onset. The subacute type is by far the more common. There is usually constipation and obstipation associated with gradual distention of the abdomen several days previous to the beginning of abdominal cramps. The patient may be ambulatory during this period. As the obstruction nears completion there is nausea and vomit-

ing. An outstanding feature is that the condition may be suddenly corrected by an enema, especially if this is taken in the knee-chest position. It is wise to question the patient about previous attacks for many have learned that enemas often give relief. The attacks have a tendency to recur although the interim may be months or even years.

From an examination of a patient suffering from the subacute type of volvulus of the sigmoid colon, one will find pronounced abdominal distention, usually some diffuse tenderness, and absence of audible or visible peristalsis. The absence of signs of intestinal activity is due to the fact that the huge gas filled loop of the sigmoid colon rises high in the abdomen overlying the active intestines beneath. The case described here is one of the subacute type that finally ended in complete obstruction.

Case Report: Mrs. O. P., female, age 69.

The patient states that "she began to feel bloated" about three days ago. There has been no feces and very little gas passed since the onset of symptoms. Two days before admission to the hospital she developed sharp, cramp-like pains over the abdomen. The pains were more intense in the left upper quadrant. She vomited several times during the last two days. The vomitus was composed largely of bile and there was no fecal odor. During this period of illness she has had three enemas, all without relief. In giving the first two enemas she was able to introduce large amounts without expelling any fluid. With the last enema she was able to introduce only a small amount of fluid and it was immediately returned.

In the past she has had several such attacks and always obtained relief from enemas. She gives a negative history in regard to diarrhea, jaundice, clay colored stools, and melena.

The examination revealed a well-nourished, obese female not appearing acutely ill. The positive findings noted were a distended and quiet abdomen with no palpable masses or areas of tenderness.

Temp. 99.2, B. P. 130/90, pulse 98, R. 18, W. B. C. 17,000.

At operation a large segment of the sigmoid colon was found to be enormously distended to such an extent that it could not be delivered through a large right rectus incision. Its diameter was estimated at 20 centimeters. A small incision was made in the wall of this dilated segment of bowel, allowing decompression and freedom to carry out the necessary procedures. The

sigmoid was found to be twisted through an angle of 180 degrees. A temporary colostomy was done as well as a sigmoidopexy. The colostomy was later closed, and the patient discharged in good condition.

Diagnosis by the Roentgenogram

The case just described is most typical, especially in regard to the X-ray findings. A line drawing was made from a film taken following the instillation of barium into the rectum. (Fig. 1.) When one realizes that this was a 14 by 17 inch film, the enormous size of the distended loop of sigmoid (1) is fully appreciated. Numbers 2, 3, and 4 represent the descending, transverse, and ascending portions of the colon. All are moderately, but not abnormally, distended with gas. Number 5 represents barium in the rectum from the attempted barium enema. Note that its termination is smooth in contradistinction to that which would be found in an obstruction due to carcinoma.

From this picture it is easy to reconstruct the sequence of events that occurred in the bowels. As the loop of sigmoid (1) gradually began to twist, there were signs of incomplete obstruction. However, at least gas continued to pass into and/or through the loop. Once obstruction became complete, there was rapid gaseous distention of the loop of sigmoid because of intestinal fermentation with its products trapped in the closed segment of bowel. The amount of gas seen in the proximal colon represents only the amount accumulated since the obstruction became complete.

The absence of gaseous distention and fluid in the small intestines; the visualization of all the normal proximal colon by gas; the presence of a huge single dilated loop of large bowel; and the smooth termination of the column of barium in the rectum, permits a diagnosis of volvulus of the sigmoid colon.

Differential Diagnosis

By far the most important condition to differentiate from volvulus is carcinoma of the sigmoid. The type of treatment varies, and certainly a delay in operation when a volvulus is present may lead to disastrous results. The history obtained in carcinoma is not discussed here but should be known by every physician. The value of a well taken history cannot be over-emphasized.

Should a typical history of carcinoma of the large bowel not be obtained, it is well to question the patient concerning previous attacks of abdominal distress that were relieved by enemas. It is interesting to note that in this case the pa-

tient was not able to expel the fluid of the first enemas. Apparently the fluid entered the loop of the sigmoid colon but could not be evacuated. After the obstruction became complete, she was able to introduce only a small amount of fluid. In any patient giving a history compatible with volvulus of the sigmoid, and to whom an enema of only a few hundred cubic centimeters of fluid can be given, the condition should be considered.

To verify the clinical diagnosis, a film of the abdomen is made following a barium enema. It will seldom do harm to attempt a barium enema, but these patients should never be given barium by mouth. In a complete obstruction from either carcinoma or volvulus, one is usually able to introduce barium only as far as the upper rectum or sigmoid. It is important to remember that the terminus of the column of barium is smooth and ends sharply in a volvulus. In carcinoma the outline is ragged, irregular and constant. If the entire column of barium is not visualized in the anterior-posterior film, it is well to take oblique views.

Because the onset of obstruction is slow in carcinoma, there will be a much larger amount of gas and feces proximal to the site of involvement. This often produces a very great enlargement of the entire proximal colon, especially in the caecal region. Therefore, in the diagnosis of volvulus from the X-ray film, the presence of a normal or moderately large caecum, outlined by gas, is very important.

Other conditions that might be confusing are quite rare indeed. The most likely one to cause concern is a volvulus of the colon in the caecal and ascending portions. This gives a somewhat similar picture if only a flat film is taken. Of course, with a barium enema, the colon as far as the caecum is seen to be normal and usually empty. Often a portion of the ileum is involved, and fluid levels may be demonstrated in the small intestines when an upright film is made.

Treatment

The procedure of choice to correct a volvulus of the sigmoid varies with different surgeons. Nevertheless, it is agreed that anything less than a resection is insufficient treatment. Even if various types of repair and plastic surgery are done to the sigmoid and its mesentery, the condition is said to recur in about 20 per cent of the cases. Whether a Mickulicz procedure or an end-to-end anastomosis is the operation of choice, has yet to be proved.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

GENERAL hospitals, whether they recognize the fact or not, have an ever-present tuberculosis problem among patients and personnel. Those institutions that maintain a search for the disease are protecting both groups from a hazard which is always greatest when least suspected. Tuberculosis control in general hospitals has proved to be both practical and easy. It should be one of the accepted and practiced community health measures.

TUBERCULOSIS AND HOSPITALS

The method by which tuberculosis is discovered for treatment is known as case finding. This has developed in step with medical progress. In the period before and immediately after World War I, the horse-and-buggy days of the stethoscope changed to the Model-A days of an X-ray for every suspected case.

Modern case finding has leaped ahead with the speed of lightning. During the past decade, the technical developments in X-ray methods, forced to completion by the needs of the armed services, have brought efficient, fast X-ray service into the low-cost brackets. It is now possible to afford a method which one cannot afford to disregard.

Case finding in hospitals is the perfect combination of method and place. Hilleboe and Morgan, in their manual on mass radiography, have stated concisely that a hospital and an industry are the two best places to practice mass case finding by X-ray. There are about 16,000,000 hospital admissions a year, and the patients who go there expect to be examined carefully.

A complete program for control of tuberculosis in a hospital must include:

1. The space for the care of tuberculous patients, newly admitted and recently discovered.
2. A simple, efficient routine of infectious disease precautions for protection of the patients and personnel.
3. A complete case-finding program for patients and personnel.

The rationale and details of these approaches

have been described in a manual "The Management of Tuberculosis in General Hospitals," published by the American Hospital Association in 1939, and revised in 1946.

Case finding in a hospital may be applied to two groups—the patients and the personnel. The patient group consists of all new admissions to the hospital, and all patients registering for the first time at the out-patient clinic. The personnel groups include the medical and nursing staffs, and all categories of hospital employees.

The ideal qualities of a method to be used for examination of new admissions must include speed, convenience, efficiency, low cost and permanence of record.

Only an X-ray method would have these qualities, and only miniature films of high quality would meet the tests of efficiency and cost. Miniature films in use now are the 35 mm. and the 70 mm. camera films, and the 4"x5" X-ray film. A stereoscopic pair of any of these sizes is about as efficient as a 14"x17" single film provided the new technical developments have been used. The cost of each can be as low as five to twenty cents, exclusive of the costs of film readings.

There are alternative methods, to be used when equipment for taking miniature films is not available. A 14"x17" paper X-ray is slightly less efficient and costs about half as much as the 14"x17" film, the standard of comparison. Fluoroscopy costs little and provides an immediate report, but it is less efficient, needs a specially trained operator and leaves no permanent record.

Supplemental film methods are used only to

confirm or investigate the original findings. The use of 14"x17" stereo films provides the best information when the original film or lesion is indefinite.

Case finding among personnel groups is done by the methods used for new admissions. In addition, it may be considered valuable to tuberculin skin-test student nurses, nurses in tuberculosis units, medical students, internes and residents. Original reactions can be checked at intervals so long as they continue to be negative. Recurrent X-raying of the personnel groups is necessary to a complete case-finding program. Four to twelve months is the usual interval.

Surveys of various population groups have shown that about one to three per cent have reinfection type tuberculosis. Pre-induction surveys for the armed forces show that an average of about 0.9 per cent have pulmonary tuberculosis in that age group.

In hospital surveys reinfection type of disease was found in 1.5 per cent to 2.3 per cent of the patients, with perhaps one-third of this amount called "active." The medical and nursing groups have shown variable levels of infection and disease, depending on rural or urban origin and duration of contact with patients. The levels rise rapidly during continued contact, often to a 100 per cent infection rate. The older nurses have been found to have from 2.5 per cent to such fabulous rates as 8.8 per cent reinfection type disease, and ward workers with many years of contact with patients may have up to 4.3 per cent disease. Non-contact workers have the same per cent as in the comparable local population.

The present status of hospital case finding can be judged from a survey of 934 teaching hospitals by a joint committee of the American Trudeau Society and the American Hospital Association in 1944. X-rays are being taken of student nurses by 85 per cent of the hospitals; of the medical residents by 28 per cent; of graduate nurses by 31 per cent and of the other employees by only 17 per cent. In spite of the war, 56 hospitals have begun routine case finding

among new admissions. Of these, seven hospitals do not knowingly admit tuberculous patients.

The future prospects of case finding in hospitals should embrace 100 per cent of the hospitals. Routine case finding certainly will become widespread when the results have become known, when help becomes available, and when the equipment can be procured.

Practically, case finding will need to be explained. The medical staff and the hospital manager may approve the program and methods, but the hospital board may need to be enlightened. A director is necessary for the planning and execution of a suitable program for each hospital. It helps if he understands tuberculosis work and will do no harm if he has some of the fervor of an evangelist.

In conclusion, case finding in a hospital finds tuberculosis—the first essential in any tuberculosis program. It provides the hospital with a knowledge of all of the tuberculosis within its walls. It improves the hospital's competency and removes a hazard to patients and personnel—the unrecognized case. It improves the diagnostic efficiency of the hospital, both for tuberculous and non-tuberculous disease. It is bound to improve community health. Case finding in hospitals, by hospitals, is certain to become a widely used procedure.

TB Search in Hospitals, W. H. Oatway, Jr., M. D. The NTA Bulletin for November, 1945.

OBITUARY

J. P. BAKER, age 72, West Helena, died March 28th. A graduate of the Memphis Hospital Medical College in 1901, he had also attended Vanderbilt and Tulane University medical schools. In addition to his membership in the Phillips County Medical Society and the Arkansas Medical Society, he was a member of the West Helena Baptist Church, the Masonic bodies and the Shrine. Surviving relatives are his wife, a daughter and two sons.

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EDITORIAL

THE LITTLE ROCK SESSION

With an attendance which exceeded any in the
past years, the Seventieth Annual Session of the
Society was held in Little Rock, April 15-17th.
The meeting was of particular interest to the
membership in that opportunity was afforded to
greet a major portion of the 311 members who
served in the military forces and who have now
returned to practice in the state. The scientific
program was of exceptional interest; the scien-
tific exhibit had more participants than any
session for a number of years; the technical ex-
hibits were diverse, affording a view of the
newest commercial advances, and the Pulaski
County Medical Society were gracious and hos-
pitable in entertainment.

The House of Delegates took two far-reaching
steps: approval of a proposed plan for local care
of veterans with service-connected disabilities
and authorization for development of a prepaid
hospitalization and medical care plan on a state-
wide basis. The committees in charge of these
projects have begun active work. An amend-
ment affecting honorary memberships, to be
published with the Proceedings of the Session in
the June Journal, was adopted. Recommenda-
tion that the Society study the problem of financ-
ing medical fellowships with a view to relief of
the rural medical care problem was proposed

by the Committee on Medical Education and
Hospitals and approved by the House of Dele-
gates. Approval was also given to the sugges-
tion of the Arkansas State Board of Health that
the use of the physician's signed request be elim-
inated in the tuberculosis case-finding service.
A full report of the actions of the House of
Delegates will appear in the June issue of The
Journal of the Arkansas Medical Society.

Officers elected and installed are: President,
H. King Wade, Hot Springs National Park; Pres-
ident-Elect, L. T. Evans, Batesville; First Vice-
president, J. Harry Hayes, Little Rock; Second
Vice-president, W. G. Eberle, Fort Smith; Third
Vice-president, H. A. Stroud, Jonesboro; Secre-
tary, W. R. Brooksher, Fort Smith; Treasurer,
Paul L. Mahoney, Little Rock; Councilor, Second
District, M. C. Hawkins, Jr., Searcy; Councilor,
Fourth District, M. C. Crandall, Wilmot; Coun-
cilor, Sixth District, R. C. Dickinson, Horatio;
Councilor, Seventh District (election necessary
because of resignation of Louie G. Martin, in-
cumbent, who requested that Euclid M. Smith be
elected), Euclid M. Smith, Hot Springs National
Park; Councilor, Eighth District, Ellery C. Gay,
Little Rock; Councilor, Tenth District, Earle H.
Hunt, Clarksville; Delegate to the American Med-
ical Association, L. J. Kosminsky, Texarkana, and
Alternate to the American Medical Association,
C. A. Archer, DeQueen.

OLIN WEST RETIRED AS SECRETARY OF THE
AMERICAN MEDICAL ASSOCIATION

Terminating a service of twenty-three years,
Olin West retired as Secretary and General
Manager of the American Medical Association
on April 1st. He has been succeeded by George
F. Lull, formerly Deputy Surgeon General, Med-
ical Corps, United States Army.

Dr. West has brought to the medical profes-
sion of America a full measure of devotion to
the continued progress of medicine, a love for
the art and tradition of the science of medicine,
a cordiality and friendliness which have endeared
him to all American physicians who have been
privileged to know him and who have had the
benefit of his counsel and judgment.

His interest in medicine is such that it will
not cease with his retirement and in wishing him
many years of good health and happiness in
which to fully enjoy his release from activities
which have taxed his energy, we know that he
will ever be at the service of the organized med-
ical profession giving it the continued benefit
of his wisdom and experience which have made
American medicine and the American Medical
Association without peer in the world.

RANDOM THOTS OF THE SECRETARY

March 31st. Inactive since February 15th, Procurement and Assignment Service today terminates in Arkansas, giving us one big happy moment.

April 6th. In a new motor traversing the scenically beautiful highway to Hot Springs this afternoon, missing dinner by late arrival, and in session with the president-elect and the council chairman until late hour over society affairs, and thence, for good food at the Southern Grill, the guests of ex-Colonel Euclid M. Smith, jovial indeed over return to the private practice of medicine.

April 7th. Denied late slumber in one of the Arlington's good beds, we take off for Little Rock and meet with the hospital association executive committee who evidence great interest in plans for medical and hospital care of veterans. So, back to the Vapor City and a short visit with "Miss Em" and the Smith family and homeward bound from a short week-end trip which had some of the elements of a vacation.

April 12th. The Pepsi-Cola sky writer comes to town and brings business to a standstill.

April 14th. It may be lack of practice or it may be the years are taking their toll but today's drive to Little Rock is longer than it once was. Looking over the situation for the meeting to start tomorrow and happy to see Jeff Banks doing his part in a thorough manner taking that burden from us. The Marion shows full cooperation in arrangements but we hope all members will visit those exhibitors on the mezzanine where they have been forced to locate. Tonight the Council tries out an innovation and the routine business of the annual session is accomplished ahead of time.

April 15th. The hustle and bustle of the opening session returns to peace-time normal . . . greeting about the lobby many a returned medical officer none of whom objects to civilian status . . . in the House of Delegates there are advanced proposals of unusual significance yet argument is lacking . . . discussion over honorary memberships certainly gives the impression that there is money in the pockets of physicians. . . . Welcomed by Mayor Sprick and Hoyt Allen and thanked by Fount Richardson the scientific session presents Alvarez who, at least, gives the roentgenologist something akin to praise. . . . Thompson of Saint Louis leaves but scant doubt that the Society is about to embark upon a comprehensive plan for prepayment medical and hospital care.

April 16th. With but one over-time speaker the scientific program attracts the majority of the members with its excellent presentation. . . . Our thoughtful Memorial Service honors those who have passed on, men who gave effort and loyal devotion to the cause of organized medicine . . . may others carry on. . . . The annual social session enlivens the evening as of days gone by and it would seem that enthusiasm held down by the war has all been freed tonight.

April 17th. With programs lacking because of large attendance but with no other details amiss, the session closes in harmony and good fellowship as ever. . . . In the final post-mortem, we miss, as never before, those who attended in days gone by and who stopped in to give their brief summary of the happenings before all take off for home.

April 21st. Again spending four Sunday hours in Tulsa,

a long, long wait between planes. Arriving Wichita and cordially greeted at the Alvis which is fully reconverted to peace-time business and visiting with Oklahoma's Graham and Kansas' ex-secretary, Clarence Munns, with full discussion over the frailties of the army in the conduct of a war.

April 22nd. Supporting Sam Thompson and Ellery Gay in conference with Veterans' Administration's Harding who offers more and heartier cooperation than has even been extended by a governmental agency and Arkansas' plan for medical care of the veteran needs but administrative details to become an operational reality. With the afternoon free, we visit the Kansas Medical Society's meeting place and pay tribute to the organizational ability of Ebel which has directed it. Tonight guests of the House of Delegates of the Kansas Medical Society which offers suggestions for us but differs not greatly in many a respect, including the desire to expound by those present.

April 23rd. Beginning at 1:45 a.m. is the most hectic day of our life as Braniff calls to advise that our plane will not stop at Oklahoma City, nullifying in all completeness our well-laid plans for return and a day's work at home. From this hour on, life is a succession of telephone calls from the airline, Ellery Gay, the hotel and sundry other callers, none of whom should be up and telephoning at this hour although they may be kindred characters to fellow-Arkansans we know. Sam Thompson's sole contribution to the cause is mumbled inquiries to Ellery as to what goes on and the astute solution—"charter a plane." Eventually boarding a plane for Tulsa, arriving with the expectation of boarding a chartered plane for Fort Smith and Little Rock, only slightly more confused when it is forced to turn back because of weather, chartering a taxi for the trip to Muskogee, somewhat of an accomplishment itself, arriving Muskogee, where Ellery misses his steak again, and home with Peggy in much rain and over a detour, added for purposes of confusion only, placing Gay and Thompson aboard a bus and hopeful that heaven will guide them the rest of the way.

EXAMINATION

I went down town to see "The Doc"

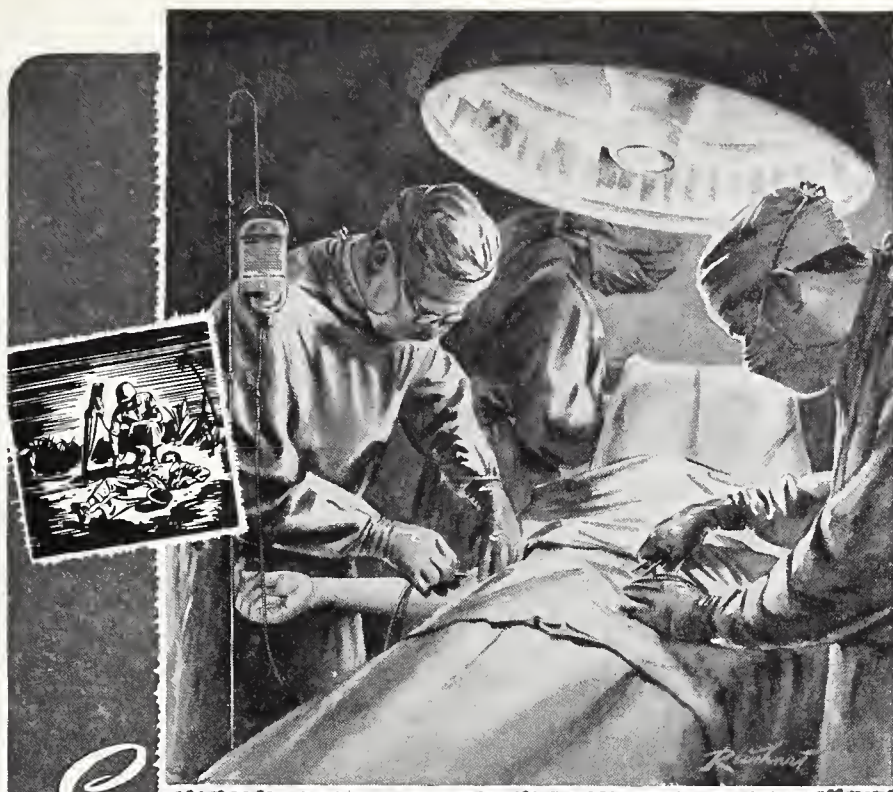
At quarter after four,
And sat out in the waiting-room
For half an hour or more.

The place was like a mad-house;
Folks running in and out,—
One fellow with a bloody nose,
Another with the gout.

When my turn came to go into
The Doctor's inner room;
He met me with a stethoscope,
(To scare me, I presume.)

He thumped me here, and thumped me there,
"A goitre, I've no doubt";
Then with the nicest smile, he said,
"You OUGHT to have the damned thing out."

—Maurine Beale Lee.



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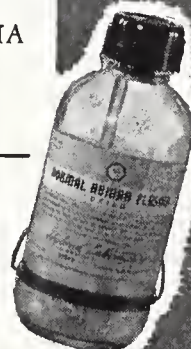
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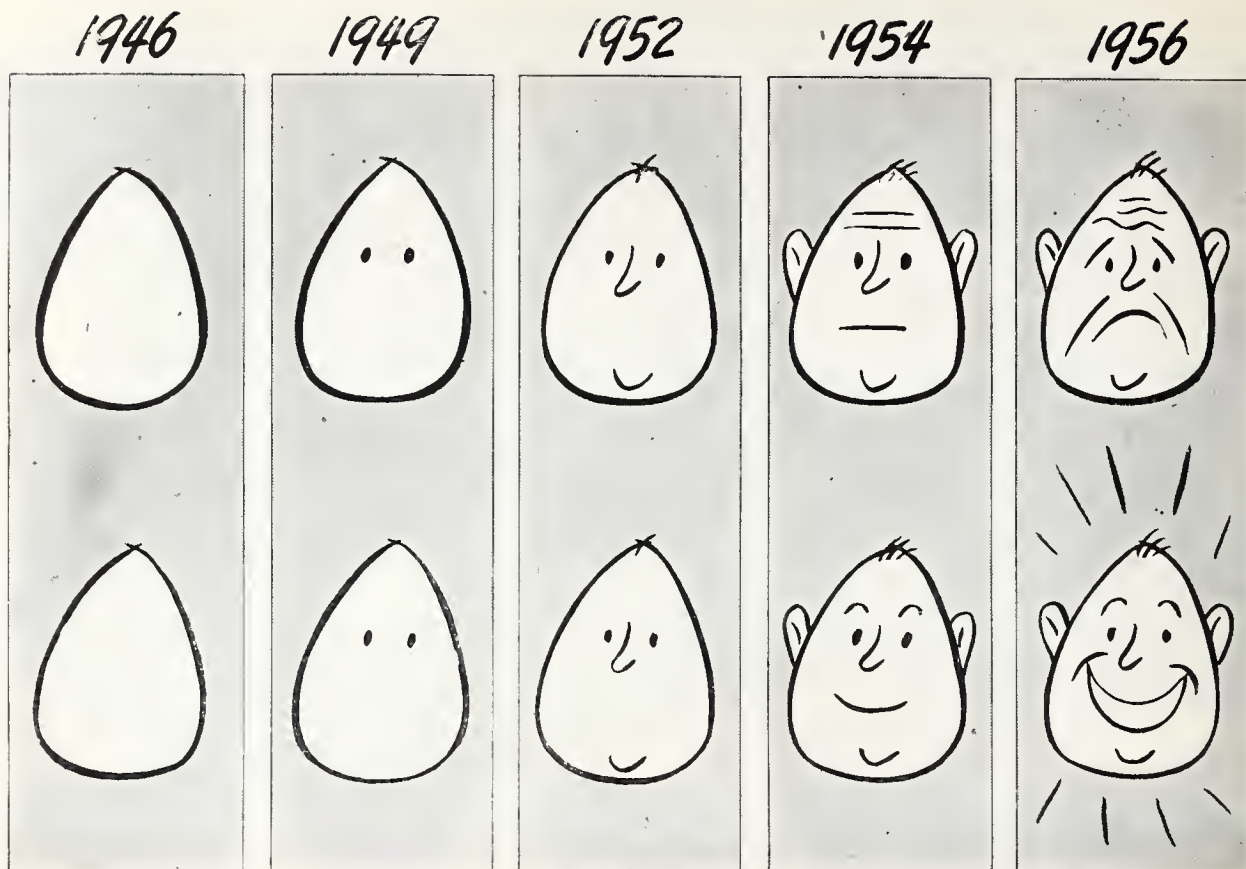
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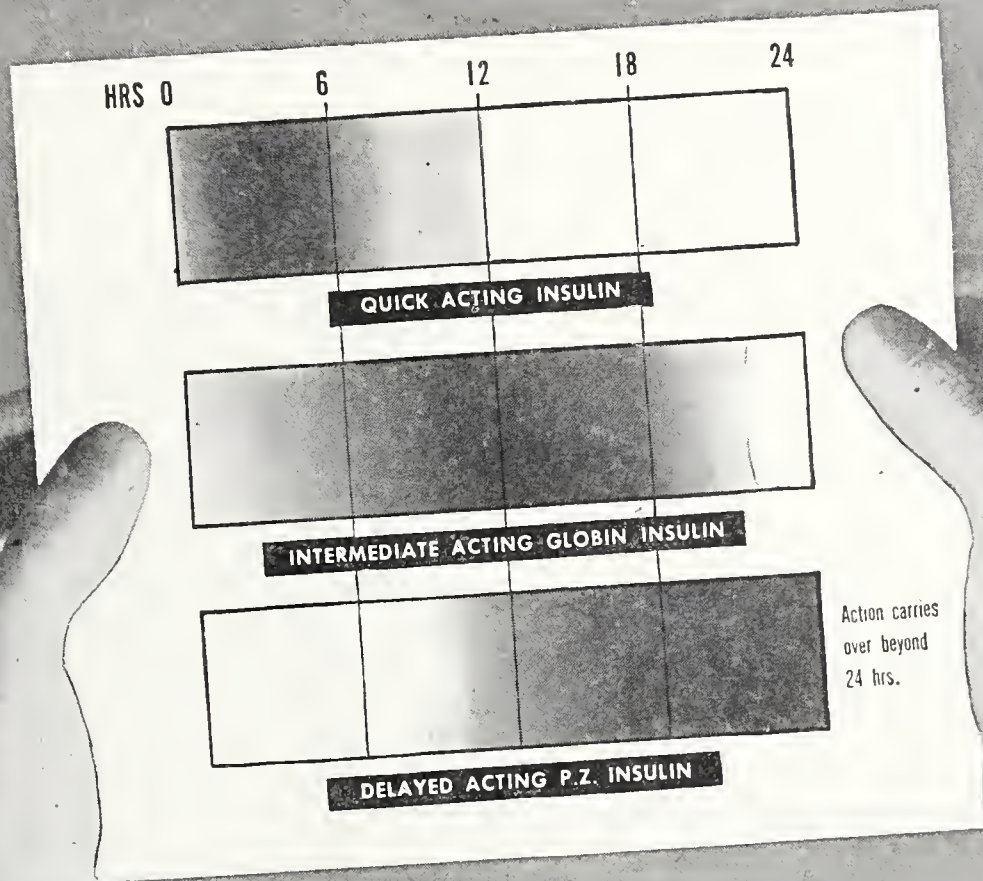
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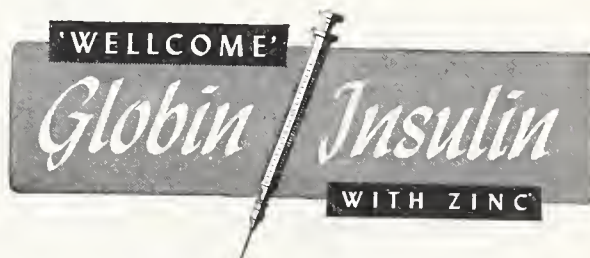


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PROCEEDINGS OF SOCIETIES

Washington County Medical Society was addressed April 2nd by Vincent O. Lesh on "Malaria and the Rickettsial Diseases."

Ruth Ellis Lesh, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro April 4th for the following program: "Address," R. C. Grier, president, Erskine College, Due West, South Carolina; "Cancer of the Stomach," R. L. Sanders, Memphis, and "Topical Treatment of Dermatitis," Ellis P. Cope, Little Rock.

J. H. McCurry, Secretary.

Phillips County Medical Society has elected the following officers: President, W. B. Connolly; vice-president, Aris W. Cox; secretary-treasurer, John B. Terry; delegate, J. W. Butts, and alternate, John B. Terry.

Carroll County Medical Society has elected the following officers: President, D. K. McCurry; vice-president, A. L. Carter; secretary-treasurer, D. C. Roberts; delegate, D. K. McCurry, and alternate, J. F. John.

Crittenden County Medical Society has elected the following officers: President, A. C. Parker, Sr., Clarkedale; vice-president, Ralph Hamilton; secretary-treasurer, Robert H. Ray, Earle; delegate, L. C. McVay, Marion, and alternate, Ralph Hamilton.

Woodruff County Medical Society has elected the following officers: President, J. W. Morris; vice-president, F. C. Maguire; secretary-treasurer, C. E. Dungan; delegate, C. E. Dungan, and alternate, F. C. Maguire.

Boone County Medical Society has elected the following officers: President, Ulys Jackson; vice-president, D. M. G. Frailey; secretary-treasurer, Ross Fowler; delegate, H. V. Kirby, and alternates, O. B. McCoy and D. L. Owens.

Sebastian County Medical Society was addressed April 9th by Hoyt Choate, Little Rock, on "Obstetric Emergencies."

D. W. Goldstein, Secretary.

Dallas County Medical Society has elected the following officers: President, H. A. Cheatham, Princeton; Vice-president, E. E. Estes, Fordyce; Secretary-treasurer, J. E. M. Taylor, Sparkman; Delegate, H. H. Atkinson, Fordyce, and Alternate, E. E. Estes.

PERSONALS AND NEWS ITEMS

Chas. H. Lutterloh and E. Driver Rowland, Hot Springs National Park, attended the post-graduate course of the American College of Physicians held in Boston recently.

S. B. Thompson, Camden, has been appointed to a residency in orthopedics at Massachusetts General Hospital, Boston.

J. H. Moseley is now located at Eudora.

Lt. H. King Wade, Jr., is chief of urology, General Hospital No. 29, Seoul, Korea.

H. H. Smith, Fort Smith, spent a recent vacation in New Orleans.

Dr. and Mrs. Virgil Payne, Pine Bluff, spent a recent vacation in New Orleans.

Homer A. Higgins, Little Rock, has been released from military service and has been appointed medical director of Selective Service in Arkansas and Oklahoma.

G. R. Siegel has been elected alderman at Clarksville.

"A Comparative Study of 100 Fractures of the Shaft of the Femur in Which One-half Were Treated by Penicillin" by Spencer A. Collom, Texarkana, and William M. Ewing, appeared in the Annals of Surgery, November, 1945.

Jett O. Scott has been elected surgeon of the Hot Springs post, Veterans of Foreign Wars.

J. R. Kitley has been elected mayor of Mayflower for the 21st consecutive term.

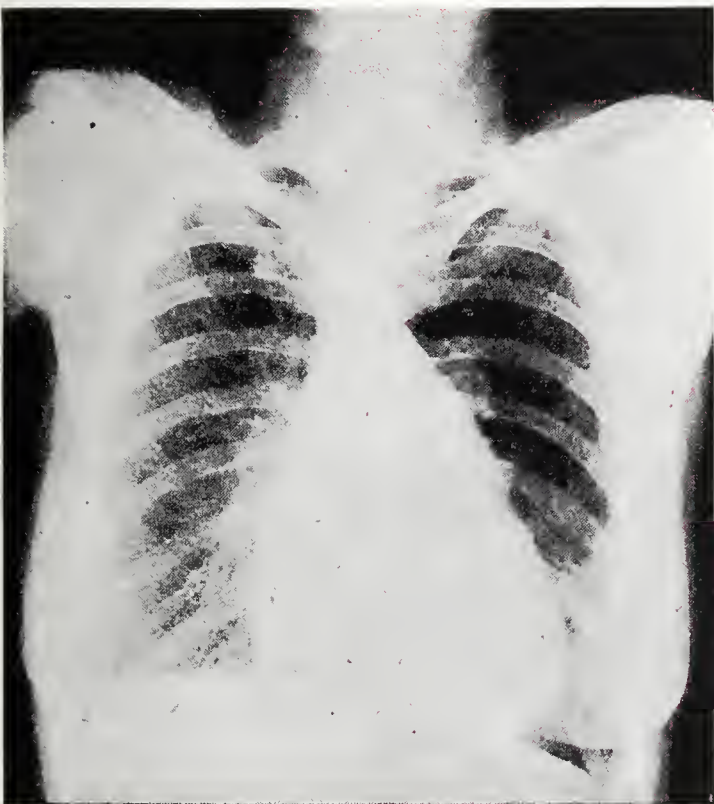
B. H. Custer has moved from North Little Rock to Botkinburg.

J. G. Mitchell, El Dorado, has purchased the Southerland Hotel at Warren.

Wendell P. Ward, formerly of Fordyce, has been released from military service and has located at 1304 South 1st Street, Temple, Texas, for practice.

Henry W. Thomas has been released from military service and has located at Dermott for practice.

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RESEARCH IN THE SERVICE OF MEDICINE

Col. Howell Brewer is now hospitalized at the Army and Navy General Hospital, Hot Springs National Park.

Chas. S. Paddock has been released from military service and has returned to practice at Fayetteville.

Ellis P. Cope has been released from military service and has returned to practice with offices in the Donaghey Building, Little Rock.

E. C. Moulton, Fort Smith, spent a recent vacation in Chicago.

J. C. Faris has been released from military service and has returned to practice at Jonesboro.

The following have been appointed part-time venereal disease consultants of the Arkansas State Board of Health: Virgle E. Lyons, Little Rock; Joe E. Beasley, Blytheville, and M. L. Skaller, Blytheville.

C. A. Churchill, F. Q. Wyatt, Hickman Calaway, J. J. Monfort and Rector Hooper have formed the North Arkansas Clinic at Batesville.

Marlin B. Hoge recently addressed the Noon Civics Club of Fort Smith on "Socialized Medicine."

Virgil Payne, Pine Bluff, has been elected a fellow of the American Laryngological Rhinological and Otological Society. His submitted thesis was "The Base of the Skull and the Oto-Laryngologist."

Ulys Jackson has been elected councilman at Harrison.

Alan A. Gilbert, Fayetteville, has been elected president of the North Arkansas Shrine Club.

Dr. and Mrs. M. V. Russell, El Dorado, visited New Orleans recently, Dr. Russell attending the postgraduate medical assembly.

Major Ashby Steele is now assigned to Veterans Administration Service, Foster General Hospital, Jackson, Mississippi.

J. Harry Hayes, Little Rock, attended the As-

sembly of the International College of Surgeons in Lima, Peru, March 24th to 28th.

Carl A. Rosenbaum has been elected deacon of the Second Presbyterian Church at Little Rock.

W. E. Hamil, Pocahontas, attended the 44th reunion of his class at Saint Louis University College of Medicine May 1st.

Robert A. Brown is now associated with Martin C. Hawkins, Jr., at Searcy.

Chas. S. Holt, Fort Smith, has been elected a trustee of the Mid-West Hospital Association.

Jack Agar has been released from military service and has returned to practice with Robert Caldwell at Little Rock.

Julius B. Askew is now assigned to the United States Public Health Service at Mill Valley, California.

Capt. J. K. Sheppard is now assigned to the Veterans' Administration at West Los Angeles, California.

T. D. Brown has opened offices for the practice of urology at 1401-02 Donaghey Building, Little Rock.

Ellery C. Gay is now located at 426 Donaghey Building, Little Rock.

J. J. Monfort recently addressed the Batesville Kiwanis Club on the medical facilities of Batesville.

Herbert K. Abrams, assigned to the United Nations Relief and Rehabilitation Administration, is now stationed at Tsingtao, China.

W. M. Parker has been released from military service and has returned to practice at DeValls Bluff.

Lt. Kenneth G. Jones is now assigned to Naval Air Technical Training Center, Memphis.

Dr. and Mrs. D. L. Owens, Harrison, spent a recent vacation in Florida.

Lyle L. Hassell has been released from military service and has located at Blytheville.

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James L. Pickens has been released from military service and has located at Bentonville.

L. F. Ritchey has been released from military service and has located at Little Rock.

Burch V. Raley has been released from military service and has located at Little Rock.

L. G. Holt has been released from military service and has returned to practice in Little Rock.

I. F. Jones, Fort Smith, spent a recent vacation in Mississippi.

D. W. Goldstein addressed the Fort Smith Exchange Club April 19th on "Cancer Control."

Sam Phillips, Little Rock, has been released from military service and is taking postgraduate work in pediatrics in Chicago.

Dr. and Mrs. Charles T. Chamberlain, Fort Smith, spent a recent vacation in Mississippi.

WOMEN'S AUXILIARY NEWS

The Bowie-Miller Medical Auxiliary met March 22nd at the home of Mrs. Joe Tyson, with Mrs. J. T. Robison as co-hostess.

Mrs. William Hibbitts presided over the meeting, and reports of committees were heard. Mrs. Roy Baskett reported that 44 Hygeia subscriptions had been secured, 18 schools as gifts of the Auxiliary, and one to the public library. Legislative chairman, Mrs. J. T. Robison, reported on contacts made which might help defeat the Wagner-Murray-Dingell Bill.

Guest speaker was Mrs. Luline Fortune Willis, who used as her subject, "American Folk Music," and began with the early joyless singing of the first Puritan settlers, telling of each era with its changing trends, down to the present day ballad. Mrs. Willis charmed her audience by singing several early folk songs of which she has made a special study and collects as a hobby.

Guests were invited to the dining room where coffee was poured by Mrs. Hibbitts and a dessert course was served by Mrs. Robison and Mrs. Tyson. The table was decorated with Picardy gladoli and candles. Iris and other spring flowers were used in the reception rooms.

Physicians of Union County were entertained with a delightful buffet supper given by the

County Medical Auxiliary at the home of Dr. and Mrs. H. J. Mayfield, West Main street, Friday night. Saturday was observed as Doctors' Day.

As guests arrived a red carnation was pinned on the lapel of each doctor by Mrs. J. H. Pinson, Jr. Mrs. Amanda Sheppard, one of the oldest members of the Auxiliary, was presented with a corsage of white carnations in recognition of her birthday.

Spring blossoms decorated the supper table and were used at points of vantage in the living room. Members of the Auxiliary assisted Mrs. Mayfield in the courtesies of the evening.

Attending the supper were: Dr. and Mrs. Berry Moore, Dr. and Mrs. Warren S. Riley, Dr. and Mrs. E. J. Munn, Dr. and Mrs. J. B. Wharton, Sr., Dr. and Mrs. J. W. Harper, Dr. and Mrs. Frank Thibault, Dr. and Mrs. S. J. McGraw, Dr. and Mrs. D. E. White, Dr. and Mrs. David LeVine, Dr. and Mrs. A. D. Cathey, Dr. and Mrs. G. D. Murphy, Sr., Dr. and Mrs. G. D. Murphy, Jr., Dr. and Mrs. M. V. Russell, Dr. and Mrs. Jack M. Sheppard, Dr. and Mrs. John H. Pinson, Jr., Dr. and Mrs. P. H. Muse of Junction City, Dr. and Mrs. H. F. Mayfield of Huttig, Mrs. Amanda Sheppard, Mrs. Frank Clark, and Dr. and Mrs. H. J. Mayfield.

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LITTLE ROCK, ARKANSAS, JUNE, 1946

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H. KING WADE, M. D.

Hot Springs National Park

PRESIDENT

Arkansas Medical Society

1946-1947

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OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

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No. 1

PRESIDENT'S ADDRESS

C. A. ARCHER, M. D.

With the falling of the bomb on Hiroshima, we, as a nation, entered the atomic age. Every phase of national and international life was changed in a moment. In the medical profession as in other departments of American life, we were brought face to face with the fact that we no longer live in pre-war lethargy. Awakened to the new era through the amazing advance in science and medicine we are aware of our opportunity as medical men, yes, of our duty to face the bright new world with the courage of our new knowledge and convictions. We need not expect to return to old-time normalcy, so-called, that we felt all the time was such an advance over horse and buggy days; that normalcy is now so out-moded that we dare not go ahead with the tools of yesterday. The improvement since 1940 has been so swift, so incredible, we are left breathless at the progress. Sulfa drugs, penicillin and plasma have fought, and overcome in many cases, infections. Blood plasma has reduced shock and sustained life; the efficiency with which surgical and medical aid have lessened mortality of our fighting men, seem miraculous. Miraculous, but only the beginnings, only shadows of things to come.

We must now proceed to uncover the new miracles that lead to a new normalcy, and things begun in an earlier age must now be brought to fruition.

Cancer Control. An amazing advance has been made in cancer control. We are all familiar with this movement, but its importance bears mention here. In 1936, the American Cancer Society initiated the organization of an army of women, The Field Army, whose purpose was to educate the public as to the early symptoms of cancer. From a group of a few thousand women who distributed educational literature in house to house canvass and who raised sums ranging from four to eight hundred thousand dollars, the organization has grown into an army

of more than four hundred thousand men and women who in 1945 raised four million dollars for education and research in cancer. Their goal for 1946 is twelve million dollars. Cancer clinics have been established in many of the large cities. In Arkansas the educational program has been continuous and extensive. Diagnostic clinics are being conducted in many counties over the state. As cancer is no respecter of persons, the clinics are open to rich and poor alike. This program **conducted in Arkansas** under the sponsorship of **this Society** should have the cooperation and support of every member.

Veterans' Care. A change in the care of veterans seems advantageous both to the veteran and the civilian doctor. Under the new plan now adopted the veterans will be sent to their home hospitals, thus keeping them near their families, and simplifying the hospitalization in many ways, making it less lengthy, and less a prey to "red tape." This plan will save space in veterans' hospitals for those who need special attention or long-time hospitalization. The Veterans Administration will pay all bills. Plans for this service must be worked out in our own state, and cooperation with the Veterans Administration by our state medical men must be forthcoming. This change in plan will keep standards high, and will also provide a closer working relationship between veterans and civilians.

Hospitalization. That there is a need for a hospitalization plan we cannot now overlook. Arkansas is one of four states in the forty-eight which does not have a definite plan of this kind. Since there must be a way to care for the underprivileged it is up to the medical profession to take the lead in this. We have perhaps waited too long to "mend our fences." Other agencies are coming in to do this for us, if we are not up and doing.

Whatever plan is finally adopted we must see that:

1. It has the indorsement of the American Medical Association.
2. Reciprocates with other state plans.
3. Is supervised and controlled by this Society.

In answer to a letter sent to your associations earlier, you have shown that you are overwhelmingly in favor of cooperating in this movement. Let us act NOW. The government is not averse to making an example of some state to show just how government control of hospitals can work. May Arkansas escape this ordeal.

There are many other fields in which opportunity and responsibility lie; support of programs for sanitation, child welfare and juvenile delinquency. Obstetrics will be paramount this year. It is estimated that more than 3,000,000 babies will be born, more than any other year in our history. A North Dakota radio station received a letter from a Minnesota listener which said: "I know that you will be interested to know that after listening to your program for over a year I now have a baby."

We are now ending a year momentous in history; V-E day, V-J day, the death of a president, and the dawning of an era. We are looking to our professional duties. Let us remember our duty to humanity.

Many of our boys have been in service, some are dead, some maimed, some imprisoned. Some of them are now returning to their loved ones, and to the professions or places of business. We are peculiarly fitted to help them make adjustments. We understand both their physical needs and their mental attitudes, that many times need a physician's attention. But more than all they need our welcoming hand and our understanding. In our own profession we should welcome the young men back, yes, we should move over and make room for them. We have labored diligently, sometimes beyond strength and endurance, we have also profited financially. Let us look to our professional ethics. Let us hold out an unselfish hand to our returning comrades, forgetting personal greed (golden glitter), and bid them welcome home.

RECONSTRUCTION OF A BILE DUCT WITH A VITALLIUM TUBE AND SOME SUGGESTIONS FOR AVOIDING THE NEED OF SUCH AN OBJECT

HOMER K. WRIGHT, M. D.
Hot Springs National Park

Strictures of the common bile duct most often follow trauma or injury during some operation on the biliary tract. They occasionally result from stones, congenital atresia or infection. Anomalies, distortion of the normal landmarks by infection, previous surgery, or unexpected deep hemorrhage may confuse the most experienced surgeon. Such conditions occurring in individuals who require haste in operation because of being poor risks or because of unsatisfactory anesthesia may result in excision or ligation of a part of the ducts in cholecystectomy.

Several months ago a 39-year-old male was admitted to the hospital wearing a 23-month-old rubber T tube in the common duct. He gave a history of a cholecystectomy during an attack of severe jaundice and having a stone "milked into the small intestine" from the lower part of the bile duct. A fistula failed to heal and several weeks later a T tube was placed into the common duct. He was discharged from the hospital with instructions for clamping the tube. During the interval of three weeks in which the tube was clamped, the patient was symptom free, but he did not return to the surgeon for removal of the tube. After this bile began to drain from around the tube.

Lipiodol was injected into the tube and roentgenograms showed complete atresia of the common duct below the juncture of the hepatic ducts and tube. At operation the ducts were easily located by following down on the tube in the fistula's tract. The common duct below the tube was a string of fibrous tissue. The hepatic ducts were too short for intestinal anastomosis. A well developed fistula's tract had developed about the tube. The tube was removed and a vitallium tube was inserted into the tract with the hub sutured about the opening of the hepatic ducts and the distal end of the vitallium tube anastomosed with the duodenum with the fistula covering. This gave a free flow of bile into the intestine. The tube prevents stricture formation in fistula tracts used for drainage and apparently causes less collection of crystals and debris

than any other material available for the surgeon's use. However, vitallium failed to prevent obstruction in bile ducts as reported by Bettelman and Tennenbaum.¹

Chronic invalidism frequently results from stricture of the bile ducts. There are usually long periods of morbidity between each attempt at repair, with the patient usually finally succumbing to malnutrition and liver damage. Here are a few suggestions which I think of some value as preventatives:

Avoidance of obesity, as biliary disturbances are usually looked upon as associated with obesity in middle life.

Keeping the waistline within certain limits by diet and exercise.

Sprinkling the diet regularly with laxative foods.

Physiological drainage of the gall bladder by intelligent use of fats in the diet should help to prevent stasis.

Crile² states that with a diet deficient in fat soluble vitamins A and D, gall stones are more apt to occur.

When a patient appears for diagnosis and treatment a classification should be made as early as possible and a correct diagnosis is of great importance. Surveys by Snell³ and Meyers⁴ indicate 60 per cent of icterus cases fall into the surgical group. The clinical picture favoring a surgical biliary disease nearly always includes a history of a gaseous type chronic indigestion with occasional attacks of biliary colic, the attacks being more prone to occur at night. Jaundice, if present, is a greenish yellow in contrast to reddish yellow in the hepatogenous variety.⁵ A palpable tender gall bladder is very significant. Meyers found enlargement of the liver in 68 per cent of benign disease and 82 per cent in malignancy. There are exceptions to all findings in history and physical examinations. Therefore, one must place considerable dependence on laboratory tests and roentgenograms. However, Steigman found calculi in eight out of twenty-seven cases of films showing no stones. Diagnostic efficiency of the laboratory tests rest chiefly upon the amount of disturbance in the function of the liver and physiology of the bile.

In brief, the findings in obstructive biliary tract disease are the following:

1. History, usually of indigestion with attacks of colicky pain.

2. Jaundice and pruritis.

3. Clay colored stools, if obstruction is complete.

4. Increase in phosphates and serum bilirubin.

5. Van Den Berg reaction immediate, direct.

6. Decrease or absence of urobilogen in urine and feces.

7. Bilirubin and bile salts in the urine.

8. Cholesterol increase in proportion to obstruction. As cirrhosis increases, cholesterol plasma value decreases.

9. Reversal of A. G. ratio as a general rule with advancing hepatic injury. This develops late in obstructive jaundice.

10. Galactose tolerance, normal in early obstruction, decrease or normal in late obstruction.

Biochemistry in biliary tract disease all too often is neglected or completely ignored. This frequently would explain the formerly unexplained so-called "liver deaths" which were attributed to respiratory and cardiorenal causes for want of a better explanation. As careful an estimate as possible of liver function and damage should be made. A diet high in protein and carbohydrate, and no fat, preserves liver protein and regenerates liver cells. The liver is protented against fatty degeneration by a high glycogen liver content. Whole blood, plasma and amino acids are a rapid means for building proteins and maintaining nitrogen balance. Plasma protein level should be checked at frequent intervals. Authorities stress the importance of fluid balance and normal albumen-globulin relationship. With damaged liver cells the normal two to one is frequently reversed. Acidosis and alkalosis are avoided by normal balance between the chlorides, which are chiefly retained in plasma, and bicarbonates, which are in the cells. All biliary tract cases should be looked upon as potential bleeders. This is due to lowered prothrombin blood level. Failure of the bile to enter the intestine results in an absence or diminished absorption of vitamin K from the intestine. Consequently, there is an insufficient amount of vitamin K for proper synthesis of prothrombin in the liver. The normal pro-thrombin level should be restored by the administration of vitamin K.

The operative schedule should include an ade-

quate surgical team with the proper choice of anesthesia. Too many gall bladder operations are done in haste due to lack of pre-operative preparation and anesthesia of insufficient duration and relaxation. The anesthesia is a matter of extreme importance. Lahey declares spinal anesthesia is very nearly ideal if given by men who are qualified to use it and meet its emergencies. Many surgeons are using cyclopropane or sodium pentothal. These are benefited by curare. However, an anesthetic should be chosen that permits a high concentration of oxygen or else the resulting anoxemia may produce additional liver cell degeneration and necrosis.

There is considerable difference of opinion as to the choice of the incision. The incision should possess the following requisites: (1) Offer as adequate exposure as possible. Most all biliary tract surgery would be much simplified if exposure was always excellent. (2) An incision permitting a minimum amount of damage to the nerves. (3) One offering the least likelihood of wound disruption, and hernia. The transverse or subcostal incision seems to meet these requirements more freely than the vertical. The incision passes through the right rectus to the median border of the left rectus, and it may be extended into the fascia of the left rectus, if required. The incision lateral to the right rectus separates the muscle fibers in line with the intercostal nerves. In the absence of acute infection, and when in doubt, it is better to explore the common duct as exploration may prevent a return engagement with the patient a poorer risk, and when a more difficult repair must be attempted.

Arn generally advocates exploring the common duct for (1) History of colicky pains with fever and chills. (2) If stones are palpable. (3) Dilatation or swelling of common duct with or without jaundice. Babcock states the cystic artery is liable to hemorrhage because of increased pressure due to close proximity to the aorta. Lahey advises careful isolation and ligation of the cystic artery before ligation of cystic duct so as to prevent most of the cystic artery hemorrhage, as stopping the hemorrhage so often results in damage to the ducts. Arn advises against the use of a clamp in the cutting of the cystic duct as traction placed on the gall bladder will angulate the common duct and the clamp may result in taking out a segment of the com-

mon duct or completely bisecting it.

Summary: Need for biliary duct repair usually follows some damage to the common duct, which is done during cholecystectomy. Adequate exposure to visualize the duct for sufficient time is needed to prevent it. This exposure time is secured by correct diagnosis, proper pre-operative preparation, anesthesia for necessary duration of relaxation, adequate incision for visualization and exploration of common duct, when indicated for securing patency of ducts. Metal tubes may be used to advantage in selected cases. The close proximity to large vessels makes one wonder if such a metallic substance could become hazardous.

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4. Meyer, K. A. Surgery, Gynec., & Obst., 67:640, 1938.
5. Weir, J. F. American Jour. of Surgery, 56:118, 1942.

OBITUARY

JOHN CULLEN BEARD, age 50, died at his home in Pine Bluff May 7th after a prolonged illness which caused his retirement from active practice in 1943. Born in Alabama, he graduated from the state university of that state and received his medical degree from the University of Tennessee College of Medicine in 1923. He completed six months postgraduate work at Harvard Medical School and served as resident in the John Gaston Hospital, Memphis, for two years. He had practiced in Pine Bluff since 1926. During World War I he served with the Marine Corps Supply Division and was a Selective Service examiner for Jefferson County in World War II. He was a member of the American Legion, the Last Man's Club, the Southern Medical Association, the Jefferson County Medical Society, the Arkansas Medical Society, and a fellow of the American Medical Association. Surviving relatives are his wife and two sons.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart,
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman, Ft. Smith

THROMBO-ANGITIS OBLITERANS

History. This disease entity was first identified by Von Winiwarter in 1879. Its clinical and pathological aspects were exhaustively studied, and its present name given it by Buerger in 1908. Little has been added to its clinico-pathological picture since that time. Its cause remains unknown. The more recent major contributions to its study are various quantitative measurements of blood flow to various parts, resulting in a much more exact understanding of the influence of different factors upon the diminished blood flow. For the most part these contributions come from studies of normal individuals and from patients with occlusive arterial diseases in general, and since they facilitate therapy of such diseases, they apply in the therapy of thrombo-angitis obliterans. Among the outstanding investigations of this kind are those of Lewis, Krogh, Leriche, George Brown, Eugene M. Landis, and their co-workers.

Pathology. The peripheral arteries and veins are most commonly involved, but any artery or vein may be. According to Mahorner, the earlier arterial changes are lymphocytic infiltration of the adventitia and intimal thickening resulting from cellular proliferation. Thrombosis, and eventually fibrosis within the adventitia and perivascular tissue, ensue. Granting close similarities, there are many differences from arteriosclerosis. The process is inflammatory rather than retrogressive. Veins as well as arteries are involved. Thrombosis is a necessary sequel. Widespread scar-tissue formation, rather than calcification, is the end result.

Pathological Physiology. The vascular inflammation, arterial or venous, and the reaction of the vessel wall, produce local pain and tenderness, and if a very superficial vessel is involved, cause very localized redness. These manifestations, frequently overlooked, are insignificant as compared with the ischaemia that the arterial occlusion causes. Although adequate collateral circulation is almost always available within the

venous circulation, and may for years develop satisfactorily in the arterial circulation, in the face of rapidly recurring extensive occlusions of the arterial circulation the capacity for blood flow becomes inadequate to support even basic tissue metabolism.

In thrombo-angitis obliterans, ischaemia may result not only from arterial occlusion, but also from abnormal vasoconstriction. Indeed, early in the disease abnormal vasoconstriction causes most of the ischaemia. Abnormal vasoconstriction varies from hour to hour or from day to day, especially in accordance with the environmental temperature and is usually accompanied by an abnormal degree of cold sweating, suggesting a neurological origin. To what extent the vasoconstriction and sweating have a local origin resulting from the primary pathological lesions, and to what extent they are centrally controlled, has been no better answered than in the case of Raynaud's disease. The practical connotation of cold sweating is that it affords evidence that vasoconstriction, rather than, or in addition to, arterial occlusion, is causing the ischaemia. It is strikingly relieved by therapy.

Proof of abnormal vasoconstriction can be established by relief of cutaneous peripheral ischaemic signs and symptoms after applying heat to the body, or by other means of decreasing vasomotor tone. Carefully performed vasodilatation tests afford exact information concerning the separate parts played by arterial occlusion and abnormal vasoconstriction in causing the ischaemia in any individual case or peripheral part.

Just as moderate degrees of ischaemia of muscles may cause no symptoms until the muscles are made to work (intermittent claudication), moderate degrees of ischaemia of skin may cause no harm until there is an abnormal metabolic demand. Normal skin under basal conditions requires only some 2 c.c. of blood per 100 c.c. of tissue per minute, but may need, and with normal vascularity will have, some 50 c.c. of blood per 100 c.c. Local trauma and infection make such added demands. Conspicuously ischaemic tissue has insufficient arterial supply to meet such needs. Chronic ulceration and gangrene result. The prophylactic moral is apparent.

Symptoms and Signs. In the early stage of the disease one or more of the following symptoms will be present: tender areas of migratory phlebitis, undue coldness of toes or fingers, blanching or cyanosis of digits, numbness, and

pain. One or more pulses of ankles or wrists disappear. Because of a striking tendency to form a collateral arterial supply remissions may last for a year or more, but relapses are apt to occur during the colder months. Late in the disease, or because of unusual trauma to feet or fingers, indolent lesions may result.

Diagnosis. Diagnosis is not difficult if several of the typical symptoms or signs occur in a young male. Absence of one or more peripheral pulses, and coldness of a painful extremity are highly suggestive. Migratory phlebitis, if present, is then diagnostic. Raynaud's disease is unlikely because it is rare in men and thrombo-angitis obliterans is rare in women. Other differential diagnoses are arterial embolism, coarctation of the aorta, scalenus anticus syndrome, and, commonly in the middle age group, arteriosclerosis. In only this last is any serious difficulty in differential diagnosis encountered after examination is complete. When there is no history of migratory phlebitis and no X-ray evidence of calcification of arteries, this differentiation may be impossible. Fortunately, treatment for both are very similar, and is guided by the degree of ischaemia rather than by the diagnosis.

Treatment. The outlook under present day therapy is very much brighter than a generation ago. The treatment of thrombo-angitis obliterans consists of measures to increase the volume of peripheral blood flow, and also of measures to decrease the needs for peripheral blood flow.

The latter will be considered first since they apply to all patients. Conspicuously ischaemic tissue breaks down under inconspicuous trauma. Breaks in the skin caused by scratches, blisters, and invasion by fungus, allow bacterial infection. Any rapidly spreading streptococcal infection, usually characterized by lymphangitis, is as a rule easily controlled by sulphonamide therapy, but the mixed organisms at the site of injury produce indolent ulceration. The tissue, unable to undergo inflammation because of its poor blood supply, fails to heal. It is important that the physician and the patient realize the implications of this train of events, and that early detailed instructions be given the patient to avoid them. Attention to this will prevent most of the dangerous sequelae of the disease. Bed care is necessary in severe cases, especially in those having indolent lesions.

There are numerous measures to increase peripheral blood flow. Only a few can be mentioned here because it is more important to include the general principles regarding their choice. Measures for increasing peripheral

blood flow fall into two classes: those that produce vasodilatation and those that do not. The use of heat, drugs, and all methods of interrupting vasomotor innervation, comprise the former. Thorough warmth of the body will usually initiate as full peripheral vasodilatation as the vessels have capacity for if it is pushed to the point of mild discomfort. Though many drugs have been advocated in the past few years for causing vasodilatation, none appears to produce as great an increase in peripheral blood flow as ethyl alcohol. It is used in the conventional way, as a dilute, palatable, liquor by mouth, in doses sufficient to produce either noticeable vasodilatation or a feeling of well-being. For those unable to tolerate alcohol, mecholyl bromide (acetyl beta methylcholine bromide) 0.2 gram by mouth several times a day, or papaverine hydrochloride 0.015 to 0.02 gm. intravenously, may afford slight vasodilatation. Intravenous typhoid H-antigen is useful in maintaining fairly prolonged vasodilatation and is likely to relieve severe ulcer pain. Doses are adjusted to produce only mild fevers, in order to avoid chills. Sympathectomy is usually advisable when one or at most two limbs are severely ischaemic, and there is no, or only very distal, gangrene. The conventional sympathectomy for a lower extremity appears to remove vasomotor tone indefinitely. Thoracic preganglionic section is sometimes less permanent. The use of these methods, surgical and otherwise, presupposes that the damaged vessels still have some capacity for vasodilatation. When this is not so it is necessary to resort to methods of the second class.

Buerger's postural exercises, and suction-pressure therapy are examples of this class. They increase blood flow through relatively rigid arteries by rhythmically increasing intra-arterial pressure or decreasing the pressure within the ischaemic tissue. Intermittent suction and pressure is the most effective but it has two disadvantages. It is contraindicated in the presence of any but the most localized, drained, infection, because the powerful pressure effects tend to spread infection. It can be used for only several hours a day because otherwise the cuff of the apparatus will chafe the skin.

No hard and fast rules can be laid down for the treatment of thrombo-angitis obliterans. Measures to decrease the need for peripheral blood flow are generally applicable; other measures are applicable in proportion as they are required. One is guided in accordance with success of trials of therapy, preferably in conjunction with measurements of capacity for blood

flow made by vasodilatation tests. Prolonged courses of intensive therapy should be avoided in a case in which they are not clearly necessary, but bed care, drainage of infection, suction and pressure therapy, nerve crushing to control pain, and sympathectomy may be required in the case of a patient in whom no improvement results from the earlier trials. Open lesions rarely heal without bed care. In contradistinction to arteriosclerotic gangrene, extension of gangrene into the foot may be followed by demarcation which permits eventual plastic repair. Thus amputation is usually avoided.

Hugh Montgomery, Lt. Comdr.
(MC) USNR.

NEW STREPTOMYCIN ALLOCATION PROGRAM TO MAKE PROVISION FOR CIVILIAN USES

The Army Medical Department, which has received many requests for supplies of streptomycin to be used in treating civilian cases, has announced that all civilian inquiries and requests for this drug are to be sent to Dr. Chester S. Keefer, Evans Memorial Hospital, 65 East Newton, Boston, Massachusetts. Telephone Kenmore 9200.

Dr. Keefer is chairman of the Committee on Chemotherapeutic and Other Agents of the Division of Medical Sciences, National Research Council, and has been authorized to handle civilian requests, providing they are submitted by a physician giving sufficient technical information to enable him to decide whether streptomycin is indicated in the treatment of the case.

Distribution of limited supplies of streptomycin to civilians through the Committee on Chemotherapeutic and Other Agents of the Division of Medical Sciences, National Research Council, has been provided for in the allocation program recently established by the Civilian Production Administration. Other agencies receiving allotments of the scarce drug include the Army, Navy, Veterans Administration, and the United States Public Health Service.

Although there has been a general misconception that the Army controls the total streptomycin supply, actually an approximate 30 per cent will be allotted to the Army from the production for the month of March. The bulk of the limited supply received by the Army has been employed in treating urinary tract infections associated with spinal cord injuries, and a few serious infections which have proved resistant to penicillin. At no

time has the allotment been adequate to permit any extensive research, such as experimental work on the treating of tuberculosis. In order that Dr. Keefer may obtain an adequate supply for civilian appeals, the Army has voluntarily agreed to a delay in its March delivery of streptomycin from producers.

Grants-in-aid of approximately \$500,000 for the clinical study of streptomycin, contributed in equal shares to the National Research Council by eleven pharmaceutical manufacturers, has already been announced by the Chemical Division of the Civilian Production Administration. The participating firms constitute the Streptomycin Producers Advisory Committee of the CPA.

Dr. Keefer, who headed the clinical investigation of penicillin, will be in charge of the similar program on streptomycin and will submit recommendations, together with a report on the results. The CPA has announced that there will be no commercial distribution of streptomycin at this time, nor will the producers supply the drug directly for civilian requests. Physicians have been asked not to submit requests for streptomycin if the cases are susceptible to the action of the sulfonamides, penicillin and other therapeutic agents.

The production of streptomycin, which was approximately 3,000 grams last September, is expected to increase to nearly 27,000 grams by March. A companion drug to penicillin, streptomycin is produced in a similar manner, by fermentation and chemical extraction, and, like penicillin, requires carefully controlled conditions of temperature, air and sterility. It is expected to prove a valuable supplement in cases where infections do not respond to penicillin treatment, but studies have not yet advanced to the point where the methods of administration or the amenable diseases are definitely known.

"COURAGE AND DEVOTION BEYOND THE CALL OF DUTY"

Through the cooperation of Mead Johnson & Company, \$34,000 in War Bonds are being offered to physician-artists (both in civilian and in military service) for art works best illustrating the above title.

This contest is open to members of the American Physicians Art Association and will be judged in June, 1947, at the Atlantic City Session of the American Medical Association. For full details, write Dr. F. H. Redewill, Secretary, Flood Building, San Francisco, Cal., or Mead Johnson & Co., Evansville 21, Indiana.

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EDITORIAL

OUR PRESIDENT

H. King Wade, Hot Springs National Park, installed as the 69th president of the Arkansas Medical Society at the Little Rock session, April 17th, was born and reared at Sherman, Mississippi. He attended the public schools of Sherman and Valparaiso University, Valparaiso, Indiana, and graduated from the University of Tennessee College of Medicine in 1916. His internship was at Baptist Memorial Hospital, Memphis. During his service with the army medical corps in World War I, he took special work in urology and has confined his practice to that field, becoming a diplomat of the American Board of Urology in 1936.

Active in the affairs of the medical profession, he has served as president of the Garland County Medical Society, of the South Central Branch of the American Urological Association and of the Mid-South Postgraduate Assembly and as Councilor and Chairman of the Council in the Arkansas Medical Society, being elevated from his office as Council Chairman to President-Elect at the 1945 annual session. In addition to these

organizations in which he has served, he is a member of the Southern Medical Association, a Fellow of the American Medical Association and of the American Urological Association.

Civic interests have occupied much of his time, serving as president of the Chamber of Commerce of Hot Springs National Park for two terms; president of the Boys' Club; chairman, Committee on Public Health, Arkansas Economic Council; charter member and past-president of the Kiwanis Club and a member of the Masonic bodies, the Shrine, the Elks and of the Baptist church. His wife is active in the work of the Woman's Auxiliary to the Arkansas Medical Society, and their son, Lt. H. King Wade, Jr., is now on duty with an army general hospital in Korea.

At a time when the Arkansas Medical Society is in need of active, vigorous leadership; of a leader with vision, courage and determination; it seems particularly fortunate that the guiding hand shall be that of a physician familiar with organizational policy, cognizant of the problems of private practice, eager to serve his fellow practitioner and the citizens of the state in making more available the facilities of adequate medical care.

STREPTOMYCIN'S USE LIMITED TO RESEARCHERS

In an official statement appearing in the May 4 issue of The Journal of the American Medical Association, Chester S. Keefer, M. D., of Boston, explains how the restricted supply of streptomycin is being used.

Dr. Keefer, chairman of the Committee on Chemotherapeutics and Other Agents of the National Research Council, says:

Many recent publications describing the effects of streptomycin have created so much interest and so many demands for it that the medical profession and public should be informed of the arrangements now in effect to adjust the present very limited supply to a program of clinical investigation.

The Committee on Chemotherapeutics and Other Agents of the National Research Council, at the request of the Civilian Production Administration and the Streptomycin Producers Advisory Committee, is supervising an investigation of the clinical usefulness and possible toxicity of streptomycin. The primary interest of the committee in streptomycin is to determine its effectiveness and toxicity in certain infections which

are not susceptible to treatment with sulfonamides, penicillin and other therapeutic agents.

The introduction of streptomycin to the medical profession is so recent that much remains to be learned concerning limitations of its usefulness, methods of administration, dosage, toxicity, and so on. Most of the information obtained so far has issued from military and civilian hospitals as a result of clinical investigations which have been carried out under arrangements between producers of streptomycin and individual clinical investigators. Similar studies are being continued and amplified by the Committee on Chemotherapeutics and Other Agents of the National Research Council, and a fraction of the streptomycin is now being allocated to the committee for these purposes. It is placed in charge of the chairman for distribution to those hospital physicians most competent to obtain the vitally needed information.

In addition to the group of accredited investigators, individual physicians have been included in the research program when they have patients with diseases which are being studied by the committee. Full information concerning the bacteriologic diagnosis of the case is required, and when streptomycin is allotted it is with the understanding that a full report of the case is to be returned to the committee for analysis and that all unused material is to be returned for use in other suitable cases.

Because of the restricted supply of streptomycin, it is obvious that patients selected to receive it must be those whom it can be expected to benefit and from whose treatment useful, needed information can be derived. Under present conditions many requests will inevitably have to be refused.

Following is a list of the diseases which are under investigation, together with a list of those which are not being investigated:

Diseases Which Are to Be Investigated With Streptomycin Under the Committee

Gram negative bacillary infections of the genito-urinary tract resistant to the sulfonamides; gram negative bacillary infections with bacteremia; Hemophilus influenzae infections, including meningitis, pneumonia, middle ear disease and laryngotracheitis; Friedlander's bacillus pneumonia; typhoid; Salmonella infections (paratyphoid); acute brucellosis with bacteremia; tularemia; bacterial endocarditis due to gram negative bacilli.

Diseases Which Are Not Being Investigated by the Committee at Present

Chronic idiopathic ulcerative colitis; lupus erythematosus acutus disseminatus; leukemia; cancer; fever of unknown cause; rheumatic fever; rheumatoid arthritis.

Tuberculosis

For the present only those cases of tuberculosis which were already under treatment prior to March 1, 1946, are being studied. A broader program for the study of tuberculosis is planned, but it cannot be undertaken at the present time because of inadequate supplies of streptomycin. It is the hope of the Committee on Chemotherapeutics and Other Agents to explore this problem further. The medical profession will be kept informed of developments.

Procurement and Allocation of Streptomycin

All streptomycin now being produced must be reported to the Civilian Production Administration for allocation by it. Allocations are made to the Army, Navy, U. S. Public Health Service, Veterans Administration and the National Research Council after discussion of the needs of each and adjustment of the available supply to those needs.

No one other than the agencies named may purchase streptomycin. No patient who receives it may pay for it. No physician is charged for it.

The present program of clinical research is being conducted by the concerted efforts of the government, streptomycin producers, the National Research Council and civilian medical scientists of the highest standing with the sole purpose of obtaining the necessary information concerning streptomycin in the shortest possible time. The program of the National Research Council is being supported by grants in aid from eleven pharmaceutical and chemical companies.

RANDOM THOTS OF THE SECRETARY

May 2nd. The rain which has been with us each day since we accompanied Sam Thompson and Ellery Gay to Wichita, conspires this day to deny us the fun of piloting a new Aeronca to the Fourth District meeting at Pine Bluff.

May 3rd. Tonight to the Senior Class play, "East Lynne," the high school audience responding hilariously to the tender pathos of Lady Isabel's tragic death bed scene.

May 8th. What a commentary it is that the "little man from Missouri" who rewrote the plan for health service of the American people, can sit aside and not produce some such miraculous remedy as the entire economic life of our United States appears about to collapse?

May 9th. With Goldstein to Rogers for the Benton County meeting and to listen in great interest to Fount Richardson's impressions of India—a profitable evening.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THE PHYSICIAN in general practice is frequently asked to determine which of the lesions uncovered by X-ray are active and need treatment and which are non-active and need only careful watching. To the private physician also comes the patient newly home from the sanatorium asking for guidance during the critical period following his hospital discharge. These difficult and delicate decisions call for the highest diagnostic and therapeutic skill. Unless they are made promptly and well, the control of tuberculosis will never become a reality.

DIAGNOSIS AND POSTSANATORIUM CARE IN PULMONARY TUBERCULOSIS

Familiarity with tuberculosis if it has not bred contempt has led at least occasionally to oversight on the part of physicians who have been lulled into complacency by the declining death rate. An occasional review of a disease, even so familiar a one as tuberculosis, helps to focus attention upon it. Two cases illustrate this point.

In the first case, a woman came to the sanatorium after having had a cough for an extended period of time. She had consulted her physician because of this cough and had even suggested tuberculosis. This possibility was ignored. After some months she consulted another physician. A diagnosis of tuberculosis was made at once. By this time her tuberculosis was very far advanced.

In the other case, a patient had consulted a reputable doctor for a like complaint and had requested a sputum examination. This doctor, likewise, was reluctant to consider such a possibility. After several months the woman consulted another physician and a sputum sample was obtained. Tubercle bacilli were present and the patient was admitted to the sanatorium.

It is desirable to refer patients back to their original family physicians after they are ready to leave the sanatorium, but it becomes difficult, if not impossible, in such cases.

Diagnosis. Diagnosis of tuberculosis may be reviewed very briefly before passing on to post-sanatorium treatment. In the diagnosis of tuberculosis the Mantoux test, preferably using P.P.D.,

is very reliable. A negative test means that the patient has not had tuberculosis or, as infrequently happens, has healed a tuberculosis by calcification so that all tubercle bacilli are killed. In a very far advanced, very active disease, the test will be negative occasionally. A positive test means that at some time the patient has had an active tuberculosis. It will not indicate whether or not the disease is now active nor in what part of the body it is located.

A clinical history is essential in a diagnosis of pulmonary tuberculosis. Only one or two symptoms may be present, however, and a patient can have an active disease that is practically asymptomatic. Our old classic symptoms of pulmonary tuberculosis consist of afternoon fever, loss of weight, loss of strength, night sweats, cough, hemoptysis and dyspnea, usually with an increased pulse rate. Any of these symptoms, particularly a persistent cough, demands a very careful examination for tuberculosis including an X-ray of the chest.

Results of physical examination will vary greatly, depending on the location and extent of the lesion. Unfortunately, only positive findings can be relied upon.

For X-ray examination the 14"x17" stereo plate is the one to be desired. The 14"x17" single plate is fairly reliable but not as accurate as the 14"x17" stereo. The miniature film is used mainly for mass survey work and is not reliable as the sole diagnosis in a given case of tuberculosis.

In laboratory examination of sputum, the direct smear is unreliable, unless the organisms are

found. In case the organisms are not found, examination of the concentrated sputum (or fasting gastric contents) should be made. The culture is more reliable than the concentrate examination while guinea pig inoculation is of still more value. A single negative sputum is not reliable. A patient with a far advanced tuberculosis, even with cavity formation, may have a consistently negative sputum. The blood count is not a reliable diagnostic aid, although there is usually an increased white count with some disturbance in the differential. The monocyte count is increased. It is impossible to use this, however, as a differential diagnostic base. Sedimentation rate is usually increased and may run as high as 150.

On differential diagnosis atypical pneumonias may be rather difficult to rule out, particularly in the case of an active tuberculosis with a negative sputum. However, an atypical pneumonia is more frequently found in the lower portion of the lung field. Bronchiectasis is usually located in the lower portion of the lung field near the mediastinum and can be confirmed by lipiodol visualization.

The metastatic malignant tumors are usually rather easy to recognize. The occasional gelatinous tuberculous infiltrate may resemble a metastatic nodule. The original malignancy frequently may be detected in some other portion of the body. A bronchogenic type of malignancy usually differs quite markedly on the X-ray from a tuberculous infiltration. Non-malignant tumors are usually easily differentiated from a tuberculosis. Boeck's Sarcoid somewhat resembles tuberculosis and is usually in the mid-portion of the lung field. Sputum is negative and the Mantoux is likewise negative. A bronchitis usually presents no radiographic findings except for slightly increased markings and is usually in the lower portion of the lung field. Cardiac involvement shows a marked increase in the transverse diameter of the heart. The fungus infections are usually discovered easily on sputum examination. The various types of pneumoconiosis are frequently seen in mining communities.

Postsanatorium Treatment. All patients should be kept at the sanatorium until they have had at least two hours' walking exercise daily for a period of two months. Their sputum must be consistently negative and the X-ray must show regression of the lesions. The patient must be afebrile. Treatment at home will depend on the treatment given at the sanatorium. Suggested

treatment at home for the patient who has received no collapse therapy should include two hours of rest in the morning and two hours in the afternoon. The rest periods should be observed strictly at the same hours each day. It is important to have the patient retire at the same early hour each night. If the patient stays up until midnight some nights, it is impossible to regain what has been lost, even were he to stay in bed the entire next day.

With only two hours' walking exercise, no work is to be attempted. It is usually possible to increase the walking exercise about ten minutes a week. Sputum and X-ray examinations should be secured at three-month intervals. When a patient with pneumothorax is discharged from the sanatorium the above treatment will be supplemented by pneumothorax refills at intervals. The length of time between refills and the amount of air at each refill will vary depending on the rate at which the patient absorbs the air and on his activity. This can be determined only by close observation of the patient and fluoroscopic examination or X-rays at frequent intervals. A patient with a phrenic, thoracoplasty, or a paraffin pack requires the same post-sanatorium treatment as the patient without any collapse therapy. A patient with an extrapleural pneumothorax requires the same care as the patient with an intrapleural pneumothorax.

MEDICAL LITERATURE FOR THE VETERAN PHYSICIAN

A special compilation of informative literature on recent developments in endocrinology is being presented to each physician returning from service in the armed forces during the war. Publisher of this literature is the Schering Corporation, of Bloomfield and Union, New Jersey, manufacturers of endocrine, diagnostic and other pharmaceutical preparations.

The "Welcome Home" collection supplies information designed to help the military doctor bring himself up-to-date in civilian practice. It contains a copy of "Sex Endocrinology," the illustrated 96-page volume covering the physiology, chemistry and rationale of hormones in modern therapeutics. A "Handy Index" provides in brief outline form for the physician readily accessible and concise summaries on treatment and dosage of endocrine products. The accompanying copy of the Schering "Handbook" supplies to the physician technical information and product data on Schering pharmaceuticals.

PROCEEDINGS OF SOCIETIES

Ouachita County Medical Society was addressed at its meeting May 2nd held at the Mustin Lake cottage of Dr. and Mrs. R. B. Robins by Henry G. Hollenberg, "Recent Developments in Surgery," and Charles R. Henry, "Prepayment Sickness Insurance," both speakers of Little Rock. The doctors were entertained with a fish-fry.

R. B. Robins, Secretary.

The Pulaski County Medical Society was addressed May 6th by Henry G. Hollenberg, "Observations on Early Ambulation Following Surgical Procedures."

Edgar J. Easley, Secretary.

Mr. H. W. Parker and Bill Parker, Jonesboro druggists, were hosts to the Craighead-Poinsett County Medical Society and Auxiliary recently at the Jonesboro Country Club for dinner. The guest speaker was Hon. E. C. Gathings, Congressman, who spoke on the Murray-Wagner-Dingell bill now pending.

J. H. McCurry, Secretary.

The Benton County Medical Society met in dinner session at Rogers May 9th for an address by Fount Richardson, Fayetteville, on "Medical Experiences in Military Service in India."

Geo. M. Love, Secretary.

PERSONALS AND NEWS ITEMS

Ben H. Pride has been released from military service and has returned to practice at Fort Smith.

Ellery C. Gay and Chas. R. Henry, Little Rock, addressed the recent meeting of the Arkansas Hospital Association on medical care of veterans and prepayment plans.

Brooks Teeter has been elected surgeon of the Russellville post, Veterans of Foreign Wars.

G. G. Woods, Huntington, has been elected president of the Western Arkansas Hereford Breeders Association.

Dan Autry addressed the Little Rock Departmental Club May 14th on "Socialized Medicine."

Pearl B. Waddell, Fort Smith, spent a recent vacation in Georgia.

W. R. Parsons, Little Rock, has been appointed part-time pediatric clinician with the Little Rock City Health Department.

W. J. B. Williams, Cotton Plant, has been appointed part-time pediatric clinician with the Woodruff County Health Department.

Euclid M. Smith, Hot Springs National Park, was elected second vice-president of the American Therapeutic Society at its session in Atlantic City recently.

Elmer L. Davis has moved from Crossett to Foreman.

WOMEN'S AUXILIARY NEWS

Bowie-Miller County Medical Auxiliary met April 26th in the home of Mrs. R. R. Kirkpatrick. Co-hostesses were C. H. Frank, Mrs. T. F. Kittrell and Mrs. Decker Smith.

Mrs. Roy Baskett acted as president in the absence of Mrs. William Hibbitts. After the business session Mrs. L. J. Kosminsky gave a report on the Arkansas State Convention held in Little Rock. She said there were 162 members registered there, the largest attendance since the war. Mrs. Fred Hames of Pine Bluff was elected incoming president of the Arkansas State Medical Auxiliary at the convention.

Mrs. J. T. Robison had charge of the program and gave a very interesting and educational talk on the Murry-Wagner-Dingler Health Bill, after which members held a round-table discussion. The nominating committee, composed of Mrs. J. T. Robison, Mrs. E. M. Watts and Mrs. Harry Murry, suggested the following officers for 1946-47: President, Mrs. N. B. Daniel; first vice-president, Mrs. J. H. Rives; second vice-president, Mrs. A. G. Lee; third vice-president, Mrs. N. W. Peacock of Ashdown; fourth vice-president, Mrs. R. C. Cross; recording secretary, Mrs. W. H. Daubs; corresponding secretary, Mrs. Carlton Kemp; treasurer, Mrs. Brooks Tate; parliamentarian, Mrs. Allan Collom; historian, Mrs. C. H. Frank; publicity secretary, Mrs. Roy Baskett.

Mrs. Cross gave a report on the Women's Field Army of Cancer Control, and the auxiliary went in for 100 per cent membership. The clinic will be held the week starting May 6.

PROCEEDINGS OF THE SEVENTIETH ANNUAL SESSION

ARKANSAS MEDICAL SOCIETY

Hotel Marion, Little Rock, Arkansas

April 15, 16 & 17, 1946

FIRST SESSION, HOUSE OF DELEGATES

The meeting was called to order at 9:30 a. m. by President Archer.

The Credentials Committee (M. E. McCaskill-Ellery C. Gay) reported that the credentials of the delegates present had been examined, found correct, and that a quorum was present.

By motion (Krock-O. J. T. Johnston) the roll call was dispensed with and the attendance cards were held to constitute the roll call.

The following delegates and county society members seated as delegates by action of the House of Delegates were present: ARKANSAS—R. H. Whitehead; ASHLEY—E. L. Davis; BENTON—Geo. M. Love; BOONE—D. L. Owens; CARROLL—D. K. McCurry; CHICOT—S. W. Douglas; CLAY—F. H. Jones; CLEVELAND—W. G. Hancock; CRAIGHEAD-POINSETT—J. H. McCurry, L. H. McDaniel; CRAWFORD—S. D. Kirkland; CRITTENDEN—L. C. McVay; CROSS—A. F. Barr; DESHA—H. T. Smith; DREW—J. P. Price, Jr.; FAULKNER—L. S. Dunaway; GRANT—Miles F. Kelly; GARLAND—Frank M. Burton, Euclid M. Smith; HOT SPRING—W. G. Hodges; HOWARD-PIKE—W. H. Toland; INDEPENDENCE—O. R. Hooper; JACKSON—H. O. Walker; JEFFERSON—A. R. Russell; JOHNSON—Geo. L. Hardgrave; LAWRENCE—W. W. Hatcher; LINCOLN—B. M. Gardner; LITTLE RIVER—E. W. Yates; MILLER—H. E. Murry; MISSISSIPPI—F. L. Husband; MONTGOMERY—M. J. B. Stueart; NEVADA—O. G. Hirst; OUACHITA—W. C. Magness; PHILLIPS—J. W. Butts; PULASKI—Hoyt R. Allen, R. J. Calcote, E. J. Easley, Ellery C. Gay, Fred W. Harris, Charles R. Henry, Henry G. Hollenberg, John N. Roberts, Harvey Shipp; PRAIRIE—J. C. Gilliam; RANDOLPH—W. E. Hamil; ST. FRANCIS—C. N. Bogart; SEARCY—E. G. Fendley; SEBASTIAN—W. G. Eberle, Fred H. Krock; SEVIER—R. C. Dickinson; UNION—A. D. Cathey, E. J. Munn; WASHINGTON—Preston L. Hathcock; WHITE—S. J. Allbright.

Other members of the House of Delegates present were: President Archer, President-Elect Wade, Vice-Presidents R. C. Dickinson, D. L. Owens and Fred Hames; Councilors M. C. Cran-

dall, L. T. Evans, J. G. Gladden, Earle H. Hunt, M. J. Kilbury, C. E. Kitchens, J. O. Rush, S. A. Thompson, D. L. Owens; Treasurer Paul L. Mahoney; Secretary Brooksher and the following Past-Presidents: S. J. Allbright, A. S. Buchanan, E. F. Ellis, Geo. B. Fletcher, O. J. T. Johnston, H. Fay H. Jones, L. J. Kosminsky, M. E. McCaskill, M. L. Norwood, D. A. Rhinehart, R. B. Robins, Jos. F. Shuffield, and H. T. Smith.

By motion (Evans-McDaniel) the minutes of the 69th annual session as published in the June, 1944, issue of The Journal of the Arkansas Medical Society were adopted as correct.

President Archer announced the following as the Reference Committee: M. L. Norwood, Fred H. Krock and S. A. Thompson.

Vice-President Fred Hames took the chair.

President Archer delivered the President's Address to the House of Delegates.

President's Address to House of Delegates

In 1945 no meeting of the Arkansas Medical Society was held due to war restrictions, but one meeting of the Council resolved itself into the House of Delegates, and transacted the necessary business of the Society, which has been submitted to you for approval.

In October your president, president-elect, and secretary attended the American Medical Association's Public Relations Conference in Chicago. This was the first conference held under the direction of the Council on Medical Service and Public Relations. It was attended by 115 representatives from 35 states. On the first day the conference was streamlined, to produce definite results, into seven informal roundtable discussions which eventually worked out seven definite recommendations to be discussed and adopted by various societies.

The subjects now for discussion by this body are as follows:

I. The Hospitalization Prepayment Plan.

Early in the year letters were sent to every county society explaining the urgent need that the medical men of Arkansas take action on this issue. Arkansas now is one of four states which has not adopted some plan whereby hos-

pitalization will be available to all classes. Answers to these letters show that the county societies have studied this matter, and that you are overwhelmingly in favor of adopting this vital plan, and saving your state from control by other agencies outside the medical profession. You are all familiar with this subject. I am not trying to further any particular set-up but warning that a specific plan adopted should include (a) endorsement by the American Medical Association, (b) a plan whereby members could have hospitalization in other states, or reciprocity, and (c) a plan that can be maintained under the supervision of the medical society. I strongly recommend that action on this matter be taken at this meeting.

Other recommendations that are up for discussion are:

That each state have an active legislative committee that would function both for state and federal questions, and that could be called on at any time by the Council of Public Relations either for action or information. This committee could also be abreast of questions under legislative discussion, for instance, the Murray-Dingell bill that is still simmering in Congress.

That the Children's Bureau be transferred to the Federal Security Agency instead of being left in the Department of Labor to which it is not related.

That the Bureau of Information of the American Medical Association should be established in a permanent form in order that adequate records of every physician in the United States may be maintained. From such a roster, information might be obtained for both county and state purposes. To this end we advise that the delegates to the American Medical Association give support to this matter.

With these recommendations, national in their scope, and with local problems concerning public health, juvenile delinquency, this House of Delegates should concern itself. Let our coming together mean action. Let us go forward together, which means we shall be in step with the national program also.

2. The E. M. I. C. Program.

This program was designed to care for mothers and babies of our soldiers while they were in service, particularly overseas. This was a job well-done, and contributed much to the morale of the fighting men, to know their loved ones were cared for, but this service is now no longer needed, and the Council on Medical Service and Public Relations went on record as opposing its

continuance. Child welfare and health programs will fill the needs here.

3. Fourteen-Point Program.

This program you are familiar with, as a splendid article explaining its importance was in the December Medical Journal. To carry out this program is a task within itself, a continuing challenge to the medical profession throughout the country.

4 & 5. Placement of Medical Officers, Publicity and Public Relations have been elsewhere taken care of.

6. Veterans Administration.

A joint meeting of a committee from the Arkansas Medical Society and a committee from the Arkansas Hospital Association was held April 7th. The hospital association appointed a special committee to work out details of hospital fees and responsibility of hospital care for immediate action, and a conference will be held with General Hawley April 21st in Wichita, Kansas, on this subject. A change in the care of veterans seems imminent. Service hospitals cannot care for the flood of "out patient" work now thrust upon them. Thus a plan whereby the civilian hospitals and civilian doctors may be utilized has been formed. The veteran can be at home, and still have medical care and hospitalization, with the Veterans Administration paying the bills. Plans for this cooperation with the Veterans Administration must be worked out in our state, and under proper conditions made a benefit both to the veteran and to the civilian doctors and hospitals. In other words, the veteran will be able to choose his physician and his hospital.

7. Rural Health.

It is recommended that a committee be appointed from the Society to work with the State Board of Health for the betterment of rural health. This is a phase of our work that has been too-long neglected. Better living conditions, sanitation, and preventive medicine are indicated. This is not essentially the physicians' whole responsibility, but cooperation with women's organizations, civic clubs, etc., can bring about better service.

President Archer returned to the chair and the committees of the Society reported in order, each report being referred to the Reference Committee.

Report of Committee on Medical Education and Hospitals W. C. Langston, Chairman

Matters touched upon in this report closely relate to those of other committees of this body, particularly to

that on Post-Graduate Education. It is hoped that nothing presented herein will be interpreted as an encroachment upon the prerogative of that, or any other committee.

This report will deviate from those of this committee of previous years in that less attention is given to statistical analyses of hospitalization and medical education in the state. Rather, it is the purpose of the committee to focus attention of the House of Delegates on some matters which, in its opinion, are worthy of your consideration.

As is well known to members of this body, a very searching survey is now being made of available hospital facilities and health needs of the state by the Arkansas Hospital and Health Services Survey Committee. This survey has the endorsement of this body and of other agencies in the state. Its report, when submitted, will constitute that portion of this report bearing directly upon these matters. For that reason, further remarks will deal primarily with medical education.

The University of Arkansas School of Medicine has cooperated fully with other schools in the accelerated program of medical education, as a part of the war effort. From July, 1943, to the present time, 348 students were enrolled under the government program in the school: 211 in the Army Specialized Training Unit, and 137 in the Navy V-12 Unit. During the four scholastic years of its existence the government aided, through these two units, the following percentages of the total student body enrollment: terms beginning July, 1943, 84 per cent; April, 1944, 80 per cent; January, 1945, 75 per cent, and October, 1945, 62 per cent. These students received tuition, fees, books and other supplies, maintenance, and the pay of first class privates and seamen first class, respectively. The Naval V-12 Unit was terminated in December, 1945; the ASTU in March, 1946, except for the present seniors in that unit who will be continued to graduation in June of this year.

In spite of acceleration and a depleted teaching staff, the amount and quality of student instruction were not lowered. The student mortality rate was increased somewhat due to the fact that the Army and Navy, respectively, assigned to active military duty all students who failed to maintain a satisfactory scholarship rating in any subject.

The accelerated program ceases with the present year. The next entering class will be admitted in September of this year and each September thereafter, as before the war. Great credit is due the administration and faculty of the medical school in carrying out this difficult program under very trying circumstances, and in maintaining high standards of student accomplishment when a lowering of standards might have been expected. Special praise should be accorded those loyal men of the clinical departments who gave so liberally of their time and effort when time and effort were at a high premium.

The Medical School Blood Bank now occupies new, air-conditioned and adequate quarters. Its facilities and services have been expanded and the latter are now statewide. The profession has every reason to be proud of this institution and should avail itself of the services offered, extending from fresh blood to dried plasma and cells. The Gus Blass Company and the Masonic Order of the state are to be commended for their support of this service.

As the whole field of medical services in America stands at the crossroads of decision, so does medical education in Arkansas face a time of decision. By medical

education we do not refer to the four years of curricular studies alone, but to the full field of scientific learning through which every member of our health promoting fraternity can keep abreast of advances in the profession. The time has long since passed when acceptance of mediocrity is either desirable or laudable, nor is it necessary. We have been over-conditioned to "second bests." This body has an obligation in, and should accept its share of responsibility for, perfecting plans to correct the situation. To this end, your committee desires to present for your consideration the suggestions which follow.

Your medical school has passed through a series of very difficult years. First, to maintain its existence; second, to remove the "probation" rating and obtain a Class "A" rating with the American Medical Association; third, to acquire facilities and services sufficient to make secure this rating. The first two of these objectives have been accomplished. The third is now in process, the principal item of which is a new University Hospital. This is now in the blueprint stage. But, acquisition and operation of a new hospital will bring the school to hardly more than an "acceptance" level. This poses a question which, in the opinion of this committee, should be boldly met and thoughtfully considered. Are the medical profession and citizenry of the state of Arkansas content with the bare minimum preparation of approximately sixty-five doctors per year or is there a recognized need for something more; if so, what? Forces, both from within the state and from without, are at work pointing up the need and the opportunity. Time and space do not allow of their enumeration. Suffice to mention the proposed building programs of St. Vincent's Infirmary, the Baptist State Hospital, the University Hospital, and the new 500-bed Veterans Hospital. Through proper cooperation and coordination of these agencies and possibly others, the nucleus of a center of medical learning, worthy of the name, could be established in Little Rock. As has been demonstrated over and over, such a center would benefit not only the medical profession of the state but the people of the state and would at least slow down the trek of doctors for learning, and patients for care, to Dallas, New Orleans, Oklahoma City, St. Louis, and other medical centers.

The return of our professional veterans from the military services points with no uncertain finger at the totally inadequate provision made for post-graduate instruction. While sporadic attempts have been made in this direction, they have been inadequate and definitely limited. No consistent, permanent nor adequate mechanism has been set up by either the medical school nor the body of organized medicine in the state, to meet this need. This is not to blame, but merely to point out!

It appears to the committee that the closest sort of cooperative effort of this body and the administration of the medical school is needed to solve this problem. Every effort possible should be put forward in acquiring the necessary hospital and laboratory facilities for teaching and research in all branches, pre-clinical, clinical and post-graduate. The University of Arkansas is, and should be, a center of medical learning for graduate and undergraduate alike. Facilities and personnel should be provided for the training of nurses, X-ray and laboratory technicians, anaesthetists, and other personnel needed in the present day practice of medicine.

At this juncture it might be well to point out to the House of Delegates that there seems to exist considerable lack of clarity in the minds of the profession of the state, public health and social workers, and medical

school personnel, as to just what services the University Hospital and Isaac Folsom Clinic are supposed to render. While most of the patients are admitted on a non-fee basis, it should not be inferred that all charity patients needing hospitalization are entitled to admission. To meet such a need the number of patients to be cared for would be so great as to usurp the time and efforts of the staff in patient-care which should be spent in student instruction. Except in unusual or emergency cases, admissions should be on the basis of suitability for medical educational purposes.

At the present time, the pre-clinical departments are staffed almost wholly by full-time men. A few full-time personnel are also serving in the clinical departments. One or two part-time men are on the staffs of the pre-clinical departments and a number of part-time men serve the clinical departments. The trend over the country seems to be toward increasing the number of full-time salaried men in the clinical departments, especially as heads of those departments. Such men should be well qualified and experienced in their specialties. Such an arrangement would tend to improve instruction, departmental organization and supervision, and patient care. It would encourage clinical research, a very desirable objective, and one too much neglected.

Closely related to the last two points mentioned, viz., patient admission to the hospital and full-time salaried men in the clinical departments, there arises another question. Should all patients be admitted on a straight charity basis? Should patients be admitted who can pay part of the cost of their hospitalization and professional care? Should any strictly private patients be admitted? It is the thinking of this committee that if you accept the concept that the hospital is primarily a teaching institution, then it would be logical to provide for admission of those who are willing to be used for teaching purposes. Most of these would be charity patients; some could, and would gladly, pay part of the cost of their care, and a very limited number would come in on a full pay basis. Fees paid by the latter two groups would aid greatly in paying the salaries of first class clinical staff men. All fees should be paid to the institution and not to the individual, who would be on a straight salary basis. Such an arrangement would tend to improve student and resident instruction; would improve hospital and medical care; and would aid in financing such care. And it would not, in fact, compete with private practice.

The above arrangement would contribute to the solution of another recognized problem, that of adequate complete resident training for the specialties. It should be made possible for recent medical graduates to acquire, right here in Arkansas, the training and experience needed in qualifying them for the respective specialty board examinations. These men are now, for the most part, compelled to seek such training in other states. The benefit and desirability of this cannot be denied.

Mention should be made here of the program of externships under which senior medical students are assigned to hospitals, other than the University Hospital, for training. During the brief period of its existence, this plan has proven successful, and is subject to some expansion and improvement.

So-called "refresher courses" present another problem which commands some attention. This need is met in many institutions by accepting small groups of practitioners (usually 5-10) for intensive work in a restricted field, for periods of five to ten days, for work in clinic, hospital and conferences. These courses could be as

varied and as frequent as needed. Full details should be worked out in advance.

The committee also suggests a study of the need and feasibility of holding annual clinical conferences to which outstanding medical scientists of the country would be invited to speak on recent advances of, and problems connected with, modern medical practice.

There is one other important matter to which your committee would like to direct your attention. The whole nation has been criticized for lack of medical care and hospitalization in small town and rural communities. This criticism has been directed especially at the South, and Arkansas. Medical education is expensive and time-consuming. A properly qualified doctor cannot earn a commensurate return on his investment of money and time in these communities. Neither can he practice the best type of medicine for which he has been trained, due to lack of hospital and laboratory facilities. The previously mentioned hospital survey will indicate locations where the need exists. It is quite possible that the federal government will subsidize the building of hospitals in these areas. Granted the hospital and the facilities, will we have the doctors to use them? It is suggested that this body consider a plan whereby a series of medical school scholarships can be offered to the worthy, competent young man who otherwise would be unable to study medicine. Such a person, upon accepting a scholarship, would agree to practice in such an area for a designated period of years following the completion of his training. Preferably, the recipient of the scholarship should come from the area he is to serve. These scholarships could be set up by legislative action and support, as is now being done in some states, North Carolina and Virginia, or they might be sponsored by the State Medical Society. The Kentucky Medical Association has announced a plan to raise fifty to seventy-five thousand dollars for such a plan. Your committee considers the idea of sufficient significance to warrant consideration by this body.

Before closing this report, mention should be made of one item concerning which every member of the Arkansas Medical Society can make a contribution. Scientific medicine is becoming ever more complicated, and more inclusive in its scope. Only those individuals of superior mental, physical, and moral endowments, and those having a keen desire for the study and practice of medicine, should ever be encouraged to enter this field. It is suggested that members of this society point out these facts to those prospective medical students who come to them for counsel and advice. The prospective student should early be brought to realize that he actually begins his preparation for medicine in high school (or even before), continues it in college, and diligently pursues it the rest of his life. The best faculty in the best medical school of the country cannot possibly change, in a brief moment, a high school and college playboy into a serious minded, efficient medical student. It just isn't in the cards! To encourage such a person, or one of insufficient mental capacity, or, especially, to press for his admission to medical school, is inviting disappointment, disillusionment, and psychological trauma. The truthfulness of this statement is supported by the country-wide fatality rate of approximately 20 per cent by the end of the sophomore year. Some of this waste of time and money could be avoided. Your help in this matter is invited.

To conclude, therefore, it is recommended by your Committee on Medical Education and Hospitals that this body take cognizance of matters presented in this report,

and that appropriate steps be taken whereby a solution of the problems herein presented can be sought through joint coordinated efforts of this Society and the University of Arkansas School of Medicine.

Report of Committee on
Health and Public Instruction

T. T. Ross, Chairman

COMMUNICABLE DISEASES IN 1945

Morbidity reporting serves as an index to the prevalence of disease in any given area, and any compilation of data from such reports reflects the number of cases reported rather than the absolute number of cases of any given disease which has occurred during a given period of time. As reporting of disease improves a truer picture develops and comparison with other periods may be made with a minimum of error resulting.

There were some diseases which showed an increased prevalence in 1945 over 1944, from the morbidity reports received by the State Health Department, but none reached serious epidemic proportions. On the other hand there were decreases noted in some of the acute infectious diseases as compared with the 1944 period. The public health in general was very good. Some of the more important notifiable diseases as reported in 1945 and compared with the number reported in 1944 may be listed. Those indicating an increased incidence were:

	1945	1944
Chickenpox	1,313	933
Diphtheria	510	328
Dysentery, amebic	115	50
German measles	1,026	400
Malaria	2,268	1,427
Meningitis, meningococcus	178	131
Mumps	1,835	791
Pneumonia	2,620	2,213
Poliomyelitis	63	44
Scarlet fever	868	506
Tularemia	102	71

Diphtheria has been increasingly prevalent throughout the United States and constitutes a challenge to all of us to institute modern preventive and control measures to control this killer of young children.

The increases in amebic dysentery and malaria are probably due, in part, to infected returnees of the armed forces.

The following diseases were less prevalent in 1945 than in 1944:

	1945	1944
Dysentery, bacillary	345	841
Influenza	7,944	18,488
Typhoid fever	139	150
Paratyphoid fever	4	21
Whooping cough	666	935

The influenza epidemic of 1943-1944 is reflected in the figure just quoted for 1944. An influenza epidemic in late 1945 accounted for most of the 7,944 cases reported for that year.

There was some increase in the reporting of cancer, 181 as compared with 158 in 1944. Whether or not there was a real increase in this disease is difficult to say, but it is probable that the increase reflects a better cancer consciousness.

There was no case of anthrax or of dengue fever reported in 1945. Other diseases reported showed no significant changes over other years.

VENEREAL DISEASE CONTROL

During the year 1945 the Arkansas State Board of Health venereal disease patient transportation system was greatly expanded, in both its weekly schedule and its patient load capacity. During the year 1944 the average monthly patient transportation load on both referrals and transferrals was approximately 200. During the year 1945 the transportation referral and transferral load has been increased to a monthly average approximating 650 patients. In practically all sections of the state wherein the potential venereal disease rate warrants transportation service, such service is now being provided.

Venereal disease education has not been further expanded during the year 1945. However, defense areas, as well as other vital, interested communities, are still being adequately serviced through our venereal disease educational program. Special programs, as well as numerous pamphlets, posters, motion picture films, lectures, etc., are still being introduced in interested communities throughout the state.

Case finding and epidemiological services have been and are still being improved throughout the state in conjunction with the venereal disease central registry. The successful completion of epidemiological investigation of venereal disease suspects and contacts has been increased to a monthly average of approximately 60 per cent. Such services have been a contributing factor and a great aid in definitely increasing the number of early cases of syphilis, gonorrhea, and the other venereal diseases being diagnosed early and adequate treatment instituted. Increased and advanced facilities offered by the U. S. P. H. S. Medical Center in Hot Springs, Arkansas, as well as improved diagnostic facilities in a number of our local health department diagnostic and treatment clinics, have been a great aid in increasing the number of asymptomatic and symptomatic neurosyphilis cases being diagnosed and treated.

Refresher courses in the basic principles of venereal disease control, as well as diagnosis and treatment, are now being provided in the U. S. P. H. S. Medical Center, Hot Springs, Arkansas, in cooperation with the Arkansas State Board of Health, for local health nurses, health department physicians, private physicians, and senior medical students of the University of Arkansas School of Medicine. These refresher courses are conducted in an excellent manner and are felt to be of great value to those attending the courses.

During the year 1945 an average of 74 diagnostic and treatment state affiliated clinics were maintained throughout the state and an average of 40 venereal disease clinicians supervised the clinics. The later part of the year, two part-time lend-lease U. S. P. H. S. medical officers, conducting full-time venereal disease control programs, were released from service and permitted to return to private practice in their out-of-state home communities. At present we have only one full-time civilian venereal disease control officer and one half-time venereal disease clinician. These physicians are located in the Camden and Greater Little Rock areas respectively.

During the year 1945, the following diseases and number of cases were diagnosed and treated in the Arkansas State Board of Health affiliated diagnostic and treatment clinics. The chart shown includes new cases diagnosed and treated by private physicians. Practically all cases are new except certain cases of early latent syphilis that had been previously diagnosed and had received

some treatment either in out-of-state clinics or by private physicians. However, all cases are new admissions to our clinics.

	State Clinics	Physicians	U.S.P.H.S. Medical Center	Totals
Primary & secondary syphilis	1,645	1,746	829	4,220
Early latent syphilis	3,382	187	1,539	5,108
Late latent syphilis	2,419	436	1,453	4,308
Congenital syphilis	340	19	274	633
Not stated syphilis	367	0	0	367
Neurosyphilis	0	0	1,377	1,377
Syphilis total	8,153	2,388	5,472	16,013

	State Clinics	Physicians	U.S.P.H.S. Medical Center	Totals
Chancroid	100	8	103	283
Lymphogranuloma venereum	69	10	124	203
Granuloma inguinale	28	1	48	77
Gonorrhea	3,736	1,802	1,831	7,369

TUBERCULOSIS CONTROL

For the first time the Division of Tuberculosis Control is embarking on a real control program. In the past we have been largely limited by finances and lack of personnel to a case finding program. The formation of a Division of Tuberculosis Control in the U. S. Public Health Service with the resulting allocation of grants-in-aid to the states for tuberculosis control work has enabled us to greatly expand and intensify the state's program. The case finding activities will be intensified by the addition of three of the most modern mobile X-ray units producing a 70mm. photofluorographic film.

A central case registry for the registration of all new cases of tuberculosis has been set up in the Division of Tuberculosis Control and the director of this division is working in close cooperation with the larger counties in setting up their own case registry for local use. These registers provide for an analysis of the tuberculosis problem and serve in directing attention to areas where special emphasis must be applied. It will further enable us to concretely evaluate the efficiency of all tuberculosis control activities in Arkansas. A closer working association has been carried on with the sanatoria providing for a necessary flow of information regarding the movement of tuberculosis patients.

Plans are being perfected for the direction of arrested cases to the Department of Vocational Rehabilitation in an effort to aid these individuals in resuming their rightful place in society.

The recalcitrant patient remains a very pressing problem. Some individuals through willful ignorance or purely anti-social nature, still refuse to respect the rights of other citizens in that they will not practice sanitary precautions in protecting those who come in contact with them. Conferences have been held with the Attorney General and laws, rules and regulations already in force in other states gathered. A plan is in operation to rewrite the rules and regulations of the State Board of Health in an effort to establish a legal procedure for committing these public health menaces to an institution. By means of the above measures we hope to diagnose the case early, aid the arrested individuals in their rehabilita-

tion and break the chain of spread of the disease by controlling the uncooperative patient.

MATERNAL AND CHILD HEALTH

Through the Emergency Maternity and Infant Care Program, maternity care was provided for 6,062 wives and medical care during illness for 553 infants of servicemen in the lower four pay grades. By the end of 1945 a total of 17,455 applications had been approved since the beginning of the program, 16,322 for maternity care and 1,133 for infant care. The average cost of a completed maternity case during the year was \$88.97 of which \$43.43 was for physicians' services and \$45.54 for hospital services.

In the regular program the amount of service given continued to diminish on account of lack of personnel. Emphasis was placed by state staff on materials, equipment, and consultation for better care of premature infants; on working with the State Department of Education, teacher-training institutions, and local school systems for improved methods in school health; and in beginning an intensification of work with midwives.

NUTRITION SERVICE

The nutrition service has continued to promote optimum nutrition for everyone; assist in correcting nutritional deficiencies found by doctors and dentists; keep public health personnel informed on the latest subject matter and teaching materials; and give consultant service to any agency or group desiring help with nutrition problems. Several diet leaflets have been prepared for general distribution.

Special emphasis has been placed this year on the food needs of the school child. Elementary school teachers have been assisted with their nutrition education programs. The nutritionists have cooperated with the supervisors of the school lunch program in trying to improve eating habits of children.

HYGIENIC LABORATORY

The Hygienic Laboratory examined 176,916 specimens during the year 1945. It made and distributed typhoid vaccine sufficient for the immunization of 156,000 persons. It has packaged and mailed to the counties all other drugs and biologicals which are purchased by the State Board of Health and distributed to the local health units without charge.

The general type of examination made has been the same as in former years, although certain examinations have increased while others have decreased. The greatest single increase has been in cultures for gonococci which reached a total of 6,343 with about 30 per cent positive results. There was also an increase in examination of cultures for diphtheria due to an increase in the number of cases of this disease in the last quarter of 1945.

The serology division participated in the annual syphilis survey made by the U. S. Public Health Service to determine the accuracy of techniques being used by state laboratories in the diagnosis of syphilis, and was given a very satisfactory rating.

There have been fewer changes in staff personnel than in previous war years, so that it has been possible to organize and carry on the work more satisfactorily.

MALARIA AND TYPHUS CONTROL

Malaria: Malaria control operations for the protection of war areas throughout the state continued during 1945

and, in addition, control activities were extended to civilian areas in 16 counties.

The work of civilian areas consisted of DDT house spraying of 100,000 rural homes and of larviciding work in ten of the larger towns in counties where the program operated. War area larviciding was done in 44 zones where war establishments, defense plants, and defense housing areas were located.

Actual control operations were supplemented by a program of malaria control education designed to promote and explain the control program and to stimulate the initiation of independent community and individual malaria control measures.

Typhus: This year a new activity of typhus control and survey work was added to the Malaria Control in War Areas Program.

In November a survey to determine the incidence of typhus in rats was begun. Thirty cities in selected localities throughout the state were surveyed. Reports on the survey are still incomplete, but to date Pine Bluff is the only city where a significant number of positive tests for typhus has been obtained. Plans are now being made for a control program in that city. A control program is now being carried on in Little Rock as a cooperative endeavor of MCWA and the city health department.

INDUSTRIAL HYGIENE

The 55th State Legislature appropriated \$21,480 for the Division of Industrial Hygiene for the biennial period beginning July 1, 1945. This appropriation together with the available Federal funds has enabled this division to increase its activities, in evaluating occupational disease hazards to protect the workers' health and to protect management from fraudulent claims for compensation.

The State Board of Health drew up rules and regulations pertaining to environmental sanitation in manufacturing establishments and this was adopted by the State Labor Department and the Workmen's Compensation Commission.

In addition to surveys, visits and consultations as regards improving working conditions, medical, first aid and sanitary programs in industry, several detail studies were made in plants throughout the state. Recommendations were made to prevent occupational diseases due to toxic materials. Other hazards such as silica, lead, organic solvent fumes, etc., were found and eliminated. Several outbreaks of contact dermatitis occurred in industry and recommendations were made to eliminate these hazards.

The Industrial Hygiene Division, working in cooperation with the Tuberculosis Control Division, held chest X-ray clinics in a large number of industries. A cooperative program was carried out with the Division of Venereal Disease Control, resulting in increased number of industries requesting pre-employment examination which includes blood serology.

Report of Committee on Scientific Exhibits

Jeff Banks, Chairman

Your Committee on Scientific Exhibits, through requests and voluntary exhibitors, has secured the following educational and scientific exhibits which are now on display in the hall:

1. Laboratory Aids in the Diagnosis of Ovarian Dysfunction. (Department of Gynecology—Joe H. Sander-

lin, M. D., and William B. Harrell, M. D. Department of Anatomy—Horace N. Marvin, Ph.D.)

2. Analysis of Thyroid Surgery. (J. Harry Hayes, M. D.)

3. Arkansas State Blood Plasma Program. (University of Arkansas School of Medicine, Blood Plasma Bank—P. C. Eschweiler, M. D., director.)

4. Pictorial Exhibit of Clinical and Pathological Lesions of Interest. (Department of Pathology, University of Arkansas School of Medicine.)

5. Arkansas Field Army. (The American Cancer Society.)

6. Our State Hospital. (State Hospital.)

7. Helps in the Care of the Premature. (Division of Maternal and Child Health, Arkansas State Board of Health.)

8. Malarial Control Program in Arkansas. (Arkansas State Board of Health.)

In two of these eight exhibits practicing physicians have participated, all of them from Little Rock. The other six exhibits are from state institutions, the Arkansas State Board of Health and the American Cancer Society.

Your committee wishes to express its sincere thanks to all of these contributors for their time and effort in the preparation of these exhibits but at the same time we wish to express our regret that there is not a more widespread interest on the part of the membership throughout the state in presenting exhibits at the state meeting.

We feel that many physicians in the state, regardless of how remote from Little Rock they may be, will at some time during the year run across things in their practice that are of general scientific interest and worthy of presentation at this meeting. The membership is urged to keep this in mind during the following year.

The exhibits we have secured, though small in quantity, rank high in quality. Exhibitors of previous years have complained of a lack of interest in the scientific exhibits. We trust that each of you, at some time during the meeting, will visit the various exhibits, study them carefully, ask questions of those in attendance, and thus gain information and profit for yourself, and at the same time, give satisfaction to the exhibitors for the effort they have put forth.

Report of Medical Economic Committee

H. E. Mobley, Chairman

The most pressing economic question before the profession today is the threat of socialized medicine. The Wagner-Murray-Dingell bill now in Congress emphasizes this statement. This bill is an amendment to the present Social Security law. If passed in its present form it will destroy the independence of the medical profession. The ward healer and political boss will become our policy maker.

The medical profession is made up of a large group of influential men. The medical profession, individually and collectively, the A. M. A. and allied medical organizations are powerful in so far as the policies of the medical profession go but the profession and its organizations, standing alone, are weak politically. When we oppose any change of policy we are accused of being selfish and of having an axe to grind.

We must recognize the full import and significance of the letter written by Surgeon General Parran of the U. S.

Public Health Service. It is a definite demand on the part of health workers, state, as well as Federal, to support President Truman's plan. Don't be misled by the veiled ambiguity of Dr. Parran's letter. The Public Health Service, which is a strong organization within our midst, is definitely for the Truman program.

There is a bill in Parliament in England to create a medical service for the benefit of all citizens of the Commonwealth. Political circles of England and the medical profession of England state definitely that this bill will be enacted into law. This bill will tax every citizen of England for medical service whether they accept it or not. Your committee notes with pride a protest of the American Medical Association to the government of England, against this bill. Your committee thinks that this is a bad omen in the civilized world and should encourage us to lend our entire effort in defeating such trends in our country.

Your committee recommends that every individual make it his business to teach business firms and individuals what socialized medicine in any form, means to them.

We also recommend that the medical profession join business in its fight to prevent encroachment of the government on free enterprise. The Arkansas Medical Society might well declare a policy for private medicine rather than government medicine; free medicine rather than controlled medicine; competitive medicine in preference to monopolistic medicine.

Cancer Control

Fred Hames, Chairman

Several diagnostic cancer clinics were held and a large number of patients seen. Most of these were held in communities where clinics had been conducted previously, and it is most gratifying that we are beginning to get earlier cases. The program of education conducted by the Field Army is bearing fruit in that the public is becoming more conscious of early diagnosis. The same is true of the medical profession, and more biopsies are bringing earlier diagnosis, and, as a result, more possible cures.

The committee wishes to urge more publicity through our own Journal, and through the lay press with reference to our state cancer law. Many of our physicians are not aware of this program, and the good that may be accomplished and service rendered to our indigent cancer victims.

There are ample funds available for hospitalization and domiciliary care of these unfortunates, and it is left entirely to the attending physician to judge whether or not any patient should be serviced through this facility.

Your committee urges the acquisition of additional radium to supplement the small supply which has remained unused at the University Hospital. This will enable University Hospital to treat many cases that are now having to wait for long periods, perhaps until treatment will be of no avail.

Your committee wishes at this time to thank the officers of the Society for their cooperation, suggestions and encouragement.

We would also like to call to your attention the fact that April is National Cancer Month, and to ask your hearty cooperation with efforts of the Arkansas Field Army and the American Cancer Society.

Committee on the Heart

Charles T. Chamberlain, Chairman

During the past two years the Heart Committee has attempted to carry out an educational program through the medium of the Journal by the publication at monthly intervals of summaries of problems in cardiology, both diagnostic and therapeutic, which we felt would be of general interest and instruction to the profession in this state. During the interval from November, 1944, through March, 1946, the committee published in each issue of the Journal one of the summaries mentioned for a total of seventeen articles.

No meetings of the committee were held, but your chairman did have correspondence with the several members of the committee from time to time. He wishes to take this opportunity to express his appreciation to the members of his committee and to the editor of the Journal for their cooperation in this work.

Report of Committee on Study of Midwifery

J. P. Price, Jr., Chairman

The maternal mortality rate among white women in Arkansas in 1944 (1.7 per 1,000 live births) was less than one-third of the rate ten years ago (5.6 per 1,000 live births in 1935). In the same period, however, the rate for non-white has declined only from 8.4 to 5.7 per 1,000 live births. The maternal mortality rate for non-whites (mostly negroes) in Arkansas in 1944 was more than three times as high as it was for white women in the same year, and about at the same level than the rate for white women had been ten years ago.

Closely connected with this excessive loss of life among negro women is doubtless the fact that approximately three-fourths of all negro births are attended by midwives. The answer might seem to be to abolish midwives, but this can only be done if some arrangement can be made for physicians to attend these births, of which there were 7,637 in 1944. At present this would mean mostly home deliveries, as beds for negro maternity patients outside of Little Rock are few. It would also mean that the physicians attending these women would be paid very little, if anything, for the patients who now have midwives cannot pay much, and public funds for paying for this care are not available.

A previous committee recommended that an attempt be made to replace the present midwives by trained nurse-midwives working under medical direction. The Division of Maternal and Child Health of the State Board of Health reports that this has not been feasible so far, as neither sufficient nurse-midwives, nor physicians under whom they would work, nor facilities for hospital care of abnormal cases have been available.

The State Board of Health and local health departments have attempted to regulate the practice of midwives, and to give them some instructions. Annual permits are issued to those midwives who attend classes and pledge themselves to follow certain rules. The class instructions and the rules have been aimed to induce the midwife (1) to call a physician in any difficulty, (2) to make no internal examinations and use no drugs, (3) to be clean, (4) to use silver nitrate solution in the infants' eyes, and (5) to register all births. However, there is no law nor State Board of Health regulation requiring midwives to have permits, so that except in the matters of birth registration and of eyedrops, the entire program

depends on the voluntary cooperation of the midwives. Furthermore, the number of public health nurses now employed is insufficient to give the midwives much more than cursory supervision. However, these efforts have had definite results even if only in that 400 fewer midwives reported births in 1944 than in 1937 and about 1,600 fewer births were reported by them, as is shown in the following table:

MIDWIFE DATA FOR EACH YEAR, 1937-1944

Number permits issued: 1944—788; 1943—802; 1942—837; 1941—864; 1940—905; 1939—950; 1938—884; 1937—705.

Number midwives reporting births: 1944—1,474; 1943—1,565; 1942—1,409; 1941—1,813; 1940—1,776; 1939—1,529; 1938—1,827; 1937—1,871.

Births reported by midwives: 1944—7,637; 1943—7,800; 1942—7,966; 1941—9,278; 1940—9,105; 1939—9,215; 1938—9,034; 1937—9,206.

Total births reported in state: 1944—41,620; 1943—42,922; 1942—42,994; 1941—40,416; 1940—38,712; 1939—35,529; 1938—37,128; 1937—35,486.

Per cent reported by midwives: 1944—18 per cent; 1943—18 per cent; 1942—18 per cent; 1941—22 per cent; 1940—23 per cent; 1939—26 per cent; 1938—24 per cent; 1937—26 per cent.

Since July 1, 1945, the State Board of Health has intensified the work with midwives by the assignment of a negro public health nurse-midwife to assist local public health nurses in instructing them. New instructional material has been prepared, and midwives are urged to pledge themselves, in addition to the matters previously taught, to see that all their patients have medical prenatal care and to keep only those cases found by a physician to be normal. This will throw many abnormal cases on to the charity of physicians, but it is the best that can be done at present and it is hoped that the physicians will cooperate.

The committee recommends as follows:

1. It affirms the following section of the National Health Program of the American Medical Association, as adopted by the Board of Trustees and the Council on Medical Service, February 14, 1946:

"The procedures established by modern medicine for advice to the prospective mother and for ADEQUATE CARE IN CHILDBIRTH should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid should be supplied with the funds administered through local or state agencies."

2. It urges the establishment of adequate hospitalization facilities for negro maternity cases. For the 10,000 non-white births annually at least 500 more beds are needed. These should be widely scattered in the state. Some provision will have to be made for their maintenance.

3. Some provision for medical care, at least for detecting and caring for abnormal cases, must be made.

4. Pending the accomplishment of these objectives, the State Board of Health should intensify efforts to weed out the worst of the midwives at present practicing, and to supervise the others as closely as possible.

5. It is suggested that the State Board of Health adopt a definite regulation against practicing midwifery without a permit, with a penalty for failure to comply.

6. The members of the State Medical Society, espe-

cially those practicing in localities where there are midwives, are urged to assist the state and local health departments:

- a. By familiarizing themselves with the instructions given midwives, and urging midwives of their acquaintance to comply.

- b. By accepting midwives' patients for prenatal supervision, or at least for one complete examination.

- c. By accepting, or by helping to secure assistance for abnormal cases.

Maternal and Child Welfare

I. F. Jones, Chairman

The Maternal and Child Welfare committee wish to report that in their mind the most important work coming under this committee is the "Pepper bill," which has been introduced into the Senate. An analysis of S. 1318, the Maternal and Child Welfare Act of 1945, the Pepper bill, brings the general conclusion that it does not represent the best form of legislation for the purpose for which it was written. Doubtless all physicians realize that, in brief, this bill provides complete medical care and health supervision for all mothers and children of the United States who desire to participate in its program. The mothers are eligible for care at public expense during pregnancy and delivery and children from conception to the age of twenty-one.

The American Academy of Pediatrics has raised valid objections to the bill under three general headings:

Administrative: There is no assurance of a proper and efficient integration of this service with other Federal health activities. The bill does not satisfactorily define the functions of the "advisory committees" at Federal, state and local levels. There is no provision to limit arbitrary demands for voluminous reports. There are no controls to prevent state plans from expanding too rapidly for existing personnel and facilities.

Scientific: There is no provision in the bill for the protection, continuation, or extension of existing teaching services and the provisions for research are inadequate.

Economic: The bill is all inclusive and has no "means test" of any sort to determine eligibility at state or local levels. The plan for medical care eliminates fee for service. There is no differentiation in rates to meet the different costs in various states and localities. The bill does not provide for payment to groups or institutions caring for children.

Doctors believe that the voluntary system engenders better care for mothers and children. Voluntary prepayment care plans will bring assistance to the needy. Those who can take care of themselves should not be made wards of the state.

Successful combatting of trends in legislation of this type necessitates that the medical profession be in possession of facts which will controvert statements employed by proponents of socialized schemes. There seems to be an urgent need that the facilities and needs for adequate and proper treatment of mothers and children be studied; that mortality and morbidity statistics in the state be analyzed, particularly in comparative periods when the provisions of the present EMIC program were in effect and in times when such Federal programs were not in effect. Your committee recommends a thorough study of the medical care facilities of the state for the care of mothers and children.

Committee on Post-Graduate Instruction

D. A. Rhinehart, Chairman

The Committee on Post-Graduate Instruction suspended activities during the war period. This action was necessary for several reasons, chief of which were tire and gasoline rationing, travel restrictions and difficulties making it impossible to get out-of-state guest speakers, government prohibition of medical and similar meetings, and the professional burdens of local physicians making it impossible for them to prepare for and participate in such programs. The committee could not find a place for any activity in refresher courses for those physicians returning from military service. The demands for such courses were for longer periods of instruction than the committee could provide, most of them requiring hospital and medical school facilities not under the influence of the committee.

Now that the war is over the committee can resume its activities and meetings will be held once or twice annually as before the war. The financial condition of the committee is excellent.

Report of Committee on Syphilis Control

D. W. Goldstein, Chairman

The general policy of the Venereal Disease Section of the State Department of Public Health under the venereal disease control officer, Dr. Edgar Easley, has carried out a very definite program. He and his staff are to be commended. We found that there is difficulty in procuring a full time V-D control officer for local areas in the state. Two large areas, Little Rock and Fort Smith, are now without a full time V-D control officer. At present the professional staff (nurses and physicians) is depleted and the lowest in numbers, as well as quality, of personnel since December 7, 1941.

Your committee recommends the following:

1. That salaries of physicians and nurses of the State Health Department be increased, so that men and women will become interested in this work, for now private practice is much more attractive from a financial standpoint. Veterans Administration, industrial organizations, etc., offer much more attractive salaries. Salaries of health department personnel are comparatively low. Veterans Administration and industrial organizations, in addition to offering better salaries, offer substantial retirement plans.

Failure of local communities to support adequately standard and basic local health department facilities and functions from a financial standpoint. One dollar per year capita is needed to support an adequate health program. At present only thirty-five cents per capita is available in this state. We recommend that this be brought to the attention of the State Board of Health.

2. That branch laboratories be established in centers throughout the state, or that private laboratories be used where there are no laboratory facilities. It now takes one week before reports are received from the State Laboratory.

3. That the private physician continue treatment for syphilis as outlined by the Cooperative Group with arsenicals and heavy metals.

4. That more hours be given in the teaching at the University Medical Department on the control, diagnosis and treatment of syphilis.

5. That the reporting of venereal disease is as necessary as reporting any other infectious or contagious disease.

6. We recommend that the physician inform himself on syphilis so that we may lend our aid in passing such laws as prenatal blood tests and premarital laws.

7. We condemn the practice of giving oral penicillin for venereal disease.

8. We recommend that every County Society have a program this year on venereal disease control.

Liaison Committee of the Arkansas Medical Society to the Arkansas Tuberculosis Association

A. C. Shipp, Chairman

We have kept in close contact with the work of the Arkansas Tuberculosis Association during the past year and there has been at all times the most friendly relation existing between the two groups.

The need of X-ray surveys in industrial groups has been very apparent and to assist in formulating plans for these surveys, meetings have been held with representatives of state and county medical societies, state and county tuberculosis associations, the director of the Division of Tuberculosis Control, State Health Department, the acting director of the Division of Industrial Hygiene, and a member of the staff of the National Tuberculosis Association.

In order to secure good participation by the employees it will be necessary for much educational work to be done preceding the survey, and the state tuberculosis association has offered to do this educational work.

Pulaski and Jefferson counties took the initial steps to require X-ray examination of all food handlers and the number of cases found as a result of this requirement more than justifies the expense and the amount of work involved. Several towns and cities have had similar ordinances passed by the city councils, and it is hoped that, this plan will gradually be adopted on a state-wide basis.

The lack of public health personnel in many of the counties of the state continues to be a matter of major public health importance. A number of the counties in the state have met the requirements for accreditation in tuberculosis control, but the very low death rate in these counties appears to be the result of totally inadequate reporting of cases rather than an actual decrease in the number of deaths, since the counties which have the lowest rates are, in practically every instance, those counties which have been without public health personnel.

The Sebastian County Tuberculosis Association has purchased an X-ray machine to be placed in the office of the county health department. This will greatly facilitate the X-ray examination of food handlers and school personnel, including bus drivers, janitors and cafeteria workers.

Your committee recommends that a study of legislation or strengthening State Board of Health regulations looking to compulsory hospitalization of the recalcitrant tuberculous should be made.

The Pulaski County Tuberculosis Association has a mobile X-ray unit in the field now. At regular intervals the unit is stationed at the City Health Department and all food handlers are X-rayed. Similar services are provided for the county medical department and for the city of North Little Rock by this unit.

RESOLUTION

Presented to House of Delegates of the Arkansas Medical Society, April 15, 1946, from the Liaison Committee to the Arkansas Tuberculosis Association

The following resolution was received from the State Board of Health:

Resolved, that the State Board of Health pray that the House of Delegates of the Arkansas Medical Society authorize the discontinuance of the use of the physician's signed request for the tuberculosis case finding X-ray service of the State Board of Health.

In keeping with this resolution, the following procedure will be practiced by the Division of Tuberculosis Control of the Arkansas State Board of Health.

1. All screening X-ray service will be done by use of miniature X-rays.

2. Findings of these miniature films shall be only tentative and shall be construed to mean only that further examination of the patient by his family physician is indicated.

3. This further examination shall include a chest X-ray of standard dimensions made by the family physician or by a roentgenologist to whom the patient is referred by his family physician.

4. The case-finding activities of this division shall not be limited by a person's ability to pay, nor by his race, age, sex or color.

5. Each person X-rayed **must** indicate his family physician, or the physician to whom he wishes the report sent.

6. The family physician will not be notified when the miniature X-ray findings are essentially negative.

7. When suspicious findings are present on the miniature film, the tentative diagnosis and recommendations made on this basis will be reported to the family physician in writing before the patient is contacted by the Health Department.

8. No pathological diagnosis will be given to the patient by a representative of the Health Department, it being understood that the final diagnosis is to be determined by the family physician and imparted to the patient by him, and reported to the local health department.

9. Miniature films will be filed in the central office of the State Health Department and will be available for inspection by any patient's family physician upon written request by the patient or physician.

10. Tuberculosis case finding clinics held in any county by the Division of Tuberculosis Control of the State Health Department shall have the approval of the local County Medical Society and shall be sponsored jointly by these two organizations in cooperation with any lay organization such as the state or local County Tuberculosis Association.

Report of Industrial Health Committee

A. D. Cathey, Chairman

This is the second year that I have served on your Industrial Health Committee but because of the suspension of the meetings of the Society, this is the first time I have had the pleasure of reporting to the House of Delegates. We have made our reports, however, to the Council at their regular meetings and I shall endeavor to present to you the more important activities of our committee for this period.

Soon after my appointment on this committee it became a part of our duty to study the organization, activ-

ities and objectives of the Federal State Program of Vocational Rehabilitation. This organization is administered by the Arkansas State Board of Vocational Education. During the course of study of this program your committee became cooperative with the administration in the development of their medical and surgical relief measures which had a short time previously been included in their program. Our report to the Council on April 22, 1945, included a very complete description of the Vocational Rehabilitation organization and was published in the June, 1945, Journal of the Arkansas Medical Society. That report is briefly reported in part as follows:

The cost of the administration of the Vocational Rehabilitation program including salaries and travel expenses is borne entirely by Federal funds. One-half of the expense for actual service to the individual is also paid from Federal funds. The other half is to be paid by the state. Service is to be provided only on an economic need basis.

The objective of Vocational Rehabilitation is to provide, or assist in providing, services that are needed to make physically disabled persons suitably employed. Only physically disabled persons who are unemployed or not suitably employed but who can be made employable or more advantageously employed, are eligible for vocational rehabilitation services.

Services are to be provided only after a thorough survey of the individual is made, including medical examination; and may include a review of the school record aptitude and ability tests.

After a proper study is made of the individual, the services provided may consist of one or more of the following:

1. Medical or surgical treatment. (Only if: a. The disease or disability is a definite vocational handicap; b. The disease is not progressive but static; c. The disease must be remediable to a substantial extent in a reasonable length of time (90 days); d. The individual must be medically indigent.)

2. Hospitalization (preferably and usually not exceeding 90 days).

3. Prosthetic appliances (braces, artificial legs, arms, etc.).

4. Training (trade schools, colleges, on-the-job employment, etc.).

5. Instructional supplies.

6. Maintenance.

Any of the above listed services are supplied or partially supplied only on an economic need basis.

7. Counsel, guidance and supervision by professional vocational rehabilitation workers from the time a disabled person is accepted until he is placed in suitable employment.

Vocational rehabilitation does not provide any service if there is another agency which will provide the service. It has been stated that vocational rehabilitation is not only a humanitarian program but a good economy program for the state by keeping some of the disabled off of, or removing them from, the welfare status.

Before the medical rehabilitation feature of the program could operate it was necessary that a medical advisory committee be formed. After consulting with the president of the Arkansas Medical Society, the members of this committee were appointed. It consists of eight doctors representing the different medical specialties,

one nurse representing the nursing profession, and one member representing the hospitals.

At present the committee is composed of the following members:

Dr. Jos. F. Shuffield, orthopedic surgery.
 Dr. S. C. Fulmer, internal medicine.
 Dr. W. R. Brooksher, radiology.
 Dr. K. W. Cosgrove, ophthalmology.
 Dr. George Fletcher, neurology.
 Dr. A. D. Cathey, surgery.
 Dr. Fay H. Jones, urology.
 Dr. A. C. Curtis, public health & tuberculosis.
 Mr. John Dudley, hospitals.
 Miss Marion Carpenter, nurses.

The duties of this committee are as follows:

1. Advising the State Board of Education through the director and other physical restoration personnel on matters regarding general policies.
2. Setting of standards for hospitals and medical personnel.
3. Adoption of a fee schedule and methods of payment for services and prosthetic appliances.
4. Methods of medical reporting and record keeping.
5. Assisting and interpreting to the professional personnel and institutions participating in the program, the policies and procedures adopted by the state board.

This committee has met twice with the administrative officers and supervisors of the program. It has organized and studied the program and has transacted some business including the preparation and adoption of a fee schedule.

The last meeting of this committee was held in Little Rock on October 14, 1945. At this meeting it was requested that I include the following statement in this report:

The medical advisory committee for the Federal State Vocational Rehabilitation Program realizes that the program has not as yet been approved by the Arkansas Medical Society. The members of the committee have signified their approval of the program by their acceptance of membership on the committee and are willing to continue their cooperative efforts for the success of the program if such action is not contrary to the wishes of the Arkansas Medical Society.

This concludes my report in regard to the Vocational Rehabilitation program but I wish to report as follows on our Industrial Health program:

The 55th State Legislature appropriated \$21,480 for the Division of Industrial Hygiene of the State Board of Health for the biennial period beginning July 1, 1945. This appropriation together with available Federal funds has enabled that division to increase its activities and expand its program.

It is important that this work be continued if the state is ever to become highly industrialized, since new industries tend to locate in other states if there is not some health agency to evaluate occupational disease hazards to protect them from fraudulent claims for compensation; also, skilled workers will not work in plants where environmental hazards affecting their health are not controlled. It is impossible in many instances for the Workmen's Compensation Commission to render a fair verdict if there has not been an impartial scientific health study made in the plant involved.

With the above thought and service in mind the State Board of Health has drawn up rules and regulations per-

taining to environmental sanitation in manufacturing establishments. These rules not only apply to the usual sanitation measures, but also to lighting, ventilation and other occupational disease hazards. Where occupational disease hazards exist, it is compulsory that in addition to the pre-employment medical examination, that periodic medical examinations thereafter be provided at no expense to the employee.

The Board of Health reports that their Industrial Hygiene Division has found on their surveys, visits and consultations that a large number of toxic materials were found being used in various processes in industry without the use of proper protection and recommendations were made to prevent disease due to these materials. Other hazards such as silica, lead, organic solvent fumes, etc., were found and eliminated. These investigations are made at the request of management, labor unions, the State Labor Department, Workmen's Compensation Commission, the county medical society committee on industrial hygiene, or on the initiative of the personnel of the Division of Industrial Hygiene.

The Division of Tuberculosis Control made more than 8,000 thirty-five mm. chest X-ray films of industrial employees last year. We are informed that at this time many requests are being received for this service from various industries throughout the state. These surveys are made only on the request or approval of the county medical society of the county in which the industry operates.

Committee on Medical Service and Public Relations

H. A. Higgins, Chairman

Your Committee on Public Relations and Medical Service has diligently investigated and studied the activities of prepaid medical service plans in operation in the several states and have found much advance has been made in general, considerable actuarial information has developed, and progress especially in connection with the activities of the national organization, which during the year developed a committee of the American Medical Association charged with the establishment of certain standards of acceptance leading to the approval of the Council on Medical Service and Public Relations of the American Medical Association. The adopted standards pertaining to medical service plans are as follows:

1. The plan must be acceptable to the state or county medical society in which it operates;
2. The medical profession in the area must assume responsibility for the medical service included in the benefits;
3. The plan must provide free choice of a qualified doctor of medicine and maintain the personal, confidential relationship between patient and physician;
4. The plan must be organized to provide the greatest possible benefits in medical care to all subscribers;
5. The benefits may be in terms of cash indemnities or service units;
6. Requirements of submission of actuarial data, system of accounting, supervision of appropriate state authorities, and periodical checking and reporting of the progress of the plan to the national council.

There was organized a federation of the American Medical Association known as the Associated Medical Care Plans, Inc., which would include as members all

plans that meet the minimum requirements of the Council on Medical Service and Public Relations of the American Medical Association. The Associated Medical Care Plans will undertake to establish coordination and reciprocity among all the approved plans so as to permit transfers of subscribers from one plan to another and use the benefit in any state in which the subscriber may be located. The Associated Medical Care Plan, Inc., will compile statistics on medical care, provide consultation and information based on records supplied by the several plans approved by it. It will also grant permits to use a Seal of Acceptance of the American Medical Association on policies and promotional materials to be used by those organizations which are approved and become a part of the Associated Medical Care Plans, Inc.

It appears at present that no attempt to unify the many plans already in existence into a uniform arrangement of benefits and cost, which appears to this committee to be a desirable goal, has been effected. We find that most plans existing in the several states, and in some instances several different plans existing within the same state, have ventured into prepaid service which provides only benefits in surgical cases, and under certain limitations to obstetrical cases. A few plans have included a limited medical benefit restricted usually to medical care within a hospital while very few, if any, have attempted to provide full medical care in the home and office for the reason that sufficient actuarial data has not developed and it is not yet known what would constitute a safe schedule of fees in cases of home and office service. It is noteworthy that one of our leading states undertook a full medical and surgical coverage and has later withdrawn from medical service because of its unfavorable experience.

We have consulted with the State Insurance Commission and have obtained an overall picture of the legal requirements of operation under the supervision of the Insurance Department, but we have been advised by the attorney of the Arkansas Medical Society that in his opinion it would be possible to organize and operate under a legal statute applying to benevolent societies "not operated for profit," thus avoiding the rigid requirements of the State Insurance Department. It therefore appears that no new action by the legislature would be necessary in our procedure at least for the present.

It must be understood that any organization undertaking to provide certain benefits for a certain rate of dues or premiums must be underwritten either by a cash capital which would assure the ability of the plan to pay, or be underwritten by the doctor who would guarantee to render service regardless of the ability of the plan to pay the obligation. If the participating physicians guarantee the service in lieu of cash capital, the physician would have to agree to accept less than the schedule of fees provided in event there was an insufficient accumulation of funds available to meet such payment from the dues or premiums put into the plan by the subscribers. It is our opinion that in event the physicians guarantee the services even though payment therefor might only be in part, that difficulties are prone to arise due to the individual differences of opinion, difference of understanding, and personal peculiarities of the many physicians affected. We, therefore, favor establishment of a cash working capital sufficient to assure the continued performance of the plan until such time as it would be able to provide revenues with which to guarantee its own performance. The method, procurement, and amount of

such a capital is at this time seemingly not available, but it is believed that it could be made available through the cooperation of the profession.

It is possible that our plan, if established, would have to include payment to any doctor of medicine for services in accordance with the schedule of fees, thus we would be confronted with payment of claims to irregular and poorly qualified men doing surgery probably on patients who might not need surgery. Legal entanglement makes this a possibility. It will be noted that in Oklahoma they found it necessary to pay any and all physicians making claims and do not have any so-called "participating physicians"; while in Kansas they have a group of participating physicians who have agreed to certain restrictions. However, in Kansas they have found it necessary to make payment to non-participating physicians with slight deductions. We feel that our plan would soon fall into a sad plight if certain physicians were not restricted in their activities but were assured of payment of all claims, and it can be foreseen that their already overworked scalpel would approach the melting point under the impetuosity of such a promising field.

In the issuance of policies it is actuarially unsound to accept individual subscribers for the reason that those now needing service would readily avail themselves of that opportunity, thus overburdening the plan with claims. To overcome this hazard the subscribers must be limited to groups, and such groups also tend to reduce the operating cost of administration. Group membership is a most essential restriction without which no plan is likely to succeed, and constitutes one of the great barriers in Arkansas due to the comparatively few groups of size provided by large industry.

Administrative cost of selling, collecting dues, paying claims, etc., has been found to consume from 15 to 20 per cent of the premium dollar. Many plans have been able to make arrangement with other agencies providing hospitalization service where the administrative function has been accomplished at a cost of but 7 to 10 per cent, and it is believed that such an arrangement could possibly be effected.

This committee is mindful of the existence of many problems yet unsolved in this state before a satisfactory workable plan could be put in operation. We would like to know from what source funds would be available with which to guarantee payment of claims until such time as accumulation of capital is sufficient to pay claims? We would like to know just who would be participating physicians, and who would be allowed to reap benefits? We know with certainty that some physicians, both irregular and some regarded as regular, will, if permitted, change the funds which you have donated or loaned from your pocket to theirs. What will be the effect upon rural physicians who do little surgery, and how will certain county societies accept the plan?

We feel that this Society must not embark in the dark upon a stormy sea and sink. We believe a failure would be disastrous to the profession; yet pressure upon this committee to "do something" has been, we think, unduly heavy in places.

This committee, after all its consideration, recommends to this Society that, with due precautions, a prepaid medical service plan be established in Arkansas covering surgical, obstetrical, and, if possible, a limited medical service, looking to the inclusion of a more complete coverage from time to time as experience and statistical data warrants.

Advisory Committee to State Institutions

R. B. Robins, Chairman

Chairman Robins reported that his committee had been called upon but once in an advisory capacity but that it had observed that Governor Ben Laney had shown a commendable desire to fully cooperate with the medical profession in all matters relating to professional service in state institutions and medical care generally in the state. He also called attention to the urgent need for the establishment of an institution in the state for the care of private patients with nervous or mental conditions and for alcoholics. He suggested that the old Shrine Club property, recently purchased by the Baptist State Hospital in Little Rock, might be put to this use.

Report of the State Medical Board

L. J. Kosminsky, Secretary

At the June meeting of the State Medical Board of the Arkansas Medical Society all members were present except Dr. E. A. Callahan, who died shortly before this meeting. Two new members were sworn in; one to take the place of Dr. Callahan, Dr. John Proctor of Hot Springs, and one to succeed Dr. D. L. Owens, Dr. W. H. Poynor of Harrison, Arkansas. Also, Dr. J. B. Jameson and Dr. J. T. Matthews, after having served four years, were sworn in to succeed themselves.

Officers elected for the Board were as follows: Dr. Robert J. Haley, Jr., president; Dr. Robert Hood, vice-president; and Dr. L. J. Kosminsky, secretary-treasurer. Other Board members are Drs. J. B. Jameson, J. T. Matthews, John M. Proctor and W. H. Poynor.

At the meeting on June 7, 1945, there were 51 who took the primary examination and one who took the final two-year examination. From June 10, 1945, to April 8, 1946, there were 53 certifications to other states; from June 29, 1945, to April 8, 1946, there were 18 accepted by reciprocity; from June 15, 1945, to April 8, 1946, seven duplicate licenses were issued after sworn statement that the original license was either destroyed or lost. On September 20th and 21st we had a special meeting of the Board at which time 64 took the final examination. At the regular meeting on November 8 and 9, 1945, there were 57 who took the primary examination.

I assumed the books of the State Medical Board of the Arkansas Medical Society on June 15, 1945.

We had a controversy with the State of Texas on applicants being licensed without having passed the Basic Science Board. Texas refused to continue reciprocity unless we accepted their members without Basic Science certificate.

I attended the Council on Medical Education and Federation of State Boards which was held in Chicago in February with Dr. Robert Hood and there were a great many of the boards who acted as we did; that is, would not reciprocate with Texas unless they passed the Basic Science Board.

Report of the State Cancer Commission

Carl A. Rosenbaum, Secretary

Persons afflicted with cancer who are without means of providing for themselves adequate treatment when so certified by a licensed physician may be eligible for state aid. Application for such aid should be made to the State Cancer Commission by the physician. Hospitalization will be authorized for a period not to exceed

twenty-one days. The hospital providing for the care and maintenance of patients under provision of Act No. 277 shall not charge more than \$4.50 per day. To date the Commission has provided hospitalization for patients from sixteen counties.

In promoting cancer education a one-day symposium was held at the University of Arkansas Medical School November 23, 1945.

The immediate problem for the Commission is the shortage of hospital beds. Treatment of cancer cases should not be delayed, yet, under present conditions, this is unavoidable in some instances. The University Hospital, for example, is overcrowded and has a waiting list. An institution for the treatment of indigent cancer cases exclusively, would be of great benefit to the people of Arkansas.

It is hoped that additional tumor clinics will be established in strategic parts of the state. This is possible only if local physicians are sufficiently interested.

In 1945 the General Assembly of the State of Arkansas passed Act 277 thereby establishing a State Cancer Commission to be composed of (1) the Governor, (2) the chairman of the Committee on Cancer Control of the Arkansas Medical Society and (3) three other citizens of the state to be appointed by the Governor. Two of the appointive members shall be members of the Arkansas Medical Society, to be appointed from a list submitted to the Governor by the Arkansas Medical Society. The third appointive member shall not be a member of the medical profession.

The duties of this Commission are as follows:

1. To conduct cancer clinics.
2. Engage in a program of cancer education.
3. To study the particular needs for cancer control in Arkansas and make recommendations to the Arkansas Medical Society, the State Board of Health and the Legislature.
4. From its appropriation the Commission may furnish medical, hospital and domiciliary care for indigent patients suffering from cancer.

A copy of this Act together with a copy of Appropriation Bill No. 295 are attached to this report.

The Commission wishes to cooperate to the fullest extent with the American Society for the Control of Cancer in its efforts to introduce cancer education in the public schools.

Members of the medical society are urged to report cancer cases to the State Health Department. These valuable statistics are possible only if the doctors throughout the state will furnish this information.

ACT 277

An Act to Establish a State Cancer Commission

Be It Enacted by the General Assembly of the State of Arkansas:

Section 1. There is hereby created a commission to be known and designated as the State Cancer Commission which shall be composed of the Governor, the chairman of the Committee on Cancer Control of the Arkansas Medical Society, and three other citizens of the state to be appointed by the Governor. Two of the appointive members shall be members of the Arkansas Medical Society and shall be appointed from a list of at least twice the number to be appointed, submitted to the Governor by the Arkansas Medical Society. Said members shall be appointed by and with the advice and consent of the

Senate. The third appointive member shall not be a member of the medical profession. The first members of the Commission shall be appointed by the Governor for terms as follows: One for one year; one for two years; and one for three years. Upon the expiration of the foregoing terms of the said Commission, a successor shall be appointed by the Governor, in the same manner as the original members, for a term of three years, which term of three years shall thereafter be for each member of the Commission.

Section 2. The Commission shall elect one of their number to serve as chairman and one to serve as secretary. The members of the Commission, except the secretary, shall serve without compensation as such members, but shall be reimbursed for necessary expense incurred in the performance of their duties. The Commission shall fix the compensation of the secretary and may appoint and fix the salaries of such clerical assistants as they may deem necessary.

Section 3. The Commission shall conduct cancer clinics in such parts of the state as they may deem most advantageous for the public welfare and shall engage in a program of cancer education in cooperation with established cancer educational organizations, utilizing therefore the facilities of such cancer educational organizations, private physicians and hospitals in the state and the University of Arkansas School of Medicine.

Section 4. The Commission shall from time to time make such studies of the cancer situation in Arkansas as they may deem advisable and report their recommendations to the legislature, the State Board of Health and to the Arkansas Medical Society.

Section 5. Out of the moneys available to the Commission it may furnish medical, hospital and domiciliary care in the state for indigent patients suffering from cancer and in need thereof. The Commission may grant state aid for the medical, hospital and domiciliary care in the state of persons not wholly indigent, who are suffering from cancer and are without means of providing for themselves adequate care as required by their condition, provided that the aid so granted in any individual case shall not exceed in amount the sums also expended for that case by a county or municipality. Notwithstanding any provisions of the law to the contrary, the names of persons receiving aid under this section shall not be printed in any public report.

Section 6. The Commission is authorized to receive voluntary contributions for the purposes of this Act from any source other than the state treasury and any sums allotted to and received by the state or the Commission from the Federal government for such purposes and to administer and expend the same for the purposes specified. If any such contribution shall be made on condition that the principal shall be invested and the income only used, such gifts shall be deposited with the State Treasurer and by him invested and reinvested and the income placed by him to the credit of the Commission. The Commission may in its discretion make, amend, suspend, and repeal such rules and regulations, submit such plans and reports, comply with such provisions necessary to secure the correctness and verification of such reports and do such other acts as may be proper for carrying out the provisions of this Act and necessary to qualify for allotment of funds from the Federal government.

ACT 295

An Act to Make Appropriation for the State Cancer Commission

Be It Enacted by the General Assembly of the State of Arkansas:

Section 1. There is hereby appropriated, to be payable from the Public Welfare Fund, for the use of the State Cancer Commission for the biennial period ending June 30, 1947, the following:

For the Fiscal Year Ending June 30, 1946

(1) Salary of Secretary of the Commission at \$50 per month	\$600.00
(2) Traveling expenses of members of the Commission	720.00
(3) For conducting cancer clinics throughout the state, hospitalization for indigent persons afflicted with cancer and for conducting a program of education for cancer control	23,680.00
Total.....	\$25,000.00

For the Fiscal Year Ending June 30, 1947

(1) Salary of secretary of the Commission at \$50 per month	\$600.00
(2) Traveling expenses of members of the Commission	720.00
(3) For conducting cancer clinics throughout the state, hospitalization for indigent persons afflicted with cancer and for conducting a program of education for cancer control	23,680.00
Total.....	\$25,000.00

Section 2. The Disbursing Officer for the funds provided herein shall be the Secretary of the State Cancer Commission.

Report of Council

S. A. Thompson, Chairman

January 7, 1945

Approved reorganization of the Cleveland County Medical Society. Approved survey of hospital and health center needs in the state. Selected Earle H. Hunt, Clarksville, to fill the unexpired term of the late Clyde McNeil, Rogers, as Councilor for the Tenth District. Approved serologic tests of all pregnant women. Authorized continuance of the program of the Nevada County Rural Health Association for another year.

April 22, 1945

This meeting held in lieu of the 1945 annual session of the Society. Voted to carry on the routine work of the Society for 1945. Adopted minutes of the 69th annual session. Received reports of the following committees: Liaison with the Arkansas Tuberculosis Association; Auxiliary; Cancer Control; Maternal and Child Welfare; Industrial Health; Medical Legislation; Medical Service and Public Relations; Syphilis Control; Treasurer; Secretary, adopting all reports except that on Industrial Health, which was referred back to the committee for further study. Adopted resolutions of the deaths of Past-Presidents Mahony, Wolferman and Wootton. Elected the following officers:

President-Elect, H. King Wade, Hot Springs.

1st Vice-President, R. C. Dickinson, Horatio.
 2nd Vice-President, D. L. Owens, Harrison.
 3rd Vice-President, Fred Hames, Pine Bluff.
 Treasurer, Paul Mahoney, Little Rock.
 Secretary, W. R. Brooksher, Fort Smith.
 Councilor, 1st District, P. W. Lutterloh, Jonesboro.
 Councilor, 3rd District, J. O. Rush, Forrest City.
 Councilor, 5th District, S. A. Thompson, Camden.
 Councilor, 7th District, L. G. Martin, Hot Springs.
 Councilor, 9th District, J. G. Gladden, Harrison.
 Delegate, American Medical Association, W. R. Brooksher.

Alternate, American Medical Association, Jos. F. Shuffield.

Delegate, American Medical Association, vice Wolferman, deceased, E. E. Barlow.

Nominations for appointment to the State Medical Board of the Arkansas Medical Society:

2nd Congressional District: J. T. Matthews, Heber Springs; M. C. Hawkins, Jr., Searcy; W. J. Ketz, Batesville.

3rd Congressional District: Ross Fowler, Harrison; W. H. Poynor, Harrison; C. P. Sisco, Springdale.

6th Congressional District: J. M. Proctor, Hot Springs; F. A. Corn, Lonoke; E. C. McMullen, Pine Bluff.

7th Congressional District: J. B. Jameson, Camden; A. D. Cathey, El Dorado; J. J. Baker, Magnolia.

Nominations for appointment to the Arkansas State Cancer Commission: Carl A. Rosenbaum, Little Rock; Earle H. Hunt, Clarksville; Glenn Johnson, Little Rock; W. R. Brooksher, Fort Smith.

Elected S. A. Thompson, chairman. Installed C. A. Archer as president for 1945-46.

December 16, 1945

Adopted report of Committee on Industrial Health. Received report of delegates to the American Medical Association. Provided for meetings in each councilor district to discuss matters of socio-economic interest to physicians.

March 10, 1946

Heard Dr. W. P. Callahan, Wichita, Kansas, discuss the Kansas Medical Society's plan for medical care of beneficiaries of the Veterans Administration. Heard Mr. O. E. Ebel, Topeka, Kansas, discuss Kansas Physicians' Service (prepayment care plan) and referred action to the Committee on Medical Service and Public Relations. Appointed Archer, Wade, Brooksher, Sanderlin and Gay as a committee to develop a plan for medical care of beneficiaries of the Veterans Administration which is to be presented to the 1946 annual session of the House of Delegates. Heard Mr. Dudley Gates, Extension Service, University of Arkansas, pledge the full cooperation of his agency and of the Arkansas Farm Bureau Federation to the Society in its efforts to provide rural medical service. Appointed Buchanan, Gladden and Brooksher to attend the Conference on Rural Health in Chicago March 20, 1946.

April 14, 1946

Nominated T. J. Cunningham, Sr., O. W. Clark, C. J. Higinbotham, J. T. Palmer, W. H. Simons, Pine Bluff; Ruffin Longest, Wynne; and J. A. Summers, A. F. Gray and A. K. Wayman, Little Rock, for election to honorary membership.

Recommended issuance of a charter to the Logan County Medical Society. Waived membership assessments of members in military service. Recommended that

a plan for medical care of beneficiaries of the Veterans Administration be placed in operation in Arkansas.

Ellery C. Gay, Little Rock, explained the features of the proposed plan for medical and hospital care of veterans in Arkansas to the House of Delegates.

Report of Treasurer

April 6, 1943—March 31, 1946

Balance—April 6, 1943:

Building and loan stock	\$7,500.00
U. S. bonds	900.00
Checking account	7,246.83

\$16,646.83

Receipts:

Transferred from secretary.....	\$34,500.00
Savings and loan dividends.....	443.75
Savings and loan stock sold.....	7,500.00
Interest	323.75
U. S. Bonds.....	10,500.00

\$51,267.50

Disbursements (by vouchers).....	53,110.66
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Balance—March 31, 1946:

U. S. Bonds.....	\$11,400.00
Checking account	5,403.67

\$16,803.67

PAUL L. MAHONEY.

Report of the Secretary

The membership of the Society today is 990. There were 1,109 members in good standing for 1945. Throughout the war period effort has been made to continue in good standing those members who entered military service. Some of the county societies paid the state membership assessment of their members. Those members whose county societies did not make payment of the membership assessment were, nevertheless, continued in good standing. Insofar as was possible under the conditions of global war, the Journal and a monthly bulletin were mailed each month to every member of the Society on duty with the armed forces. The problems of keeping up with fast-changing addresses of service members have, remarkably enough, not been lightened with the coming of victory. At this date there are several members of the Society whose present addresses are unknown and it is not possible to determine if they have been released from service or not.

The war years added greatly to the load of organization activity. Agencies without number called on officers of the Society for information; far more meetings demanded the attendance of your secretary than in any of the so-called peace-time years. There is manifest an increasing tendency for a larger participation of the Society in government and civic affairs; this must be met by all the membership in a spirit of willingness and sacrifice if such be needed.

The services of your secretary as Arkansas chairman for the Procurement and Assignment Service terminated with the cessation of that agency March 31st. This voluntary agency represented the effort of the medical profession to properly allocate the medical manpower of the nation for the national emergency. No one is more aware of the shortcomings than those who were intimately associated in its administration. It is felt that county chairmen, the state committee and the state chairman may

rightfully view the conclusion of the activities of this agency with relief, if not with jubilation. For the sincere effort to carry on in the difficult task which this agency forced upon them and for their constant assistance in its administrative problems, we express gratitude which may not be fully understood by other than a state chairman.

The advertising income of the Journal has shown an exceptional increase. For the period 4-1-43 to 3-31-44 this was \$6,972.57; for the period 4-1-44 to 3-31-45, \$8,592.46, and for the period just ending, 4-1-45 to 3-31-46, the figure is \$11,145.26. It may not be that such income will continue to accrue to the Journal. Whether this be true or not, an active spirit of reciprocity by the members for those advertisers who have so substantially assisted in the publication of the Journal, will surely convince these firms that advertising in the Journal of the Arkansas Medical Society is a paying proposition.

Pressure for enactment of Federal legislation which would radically change the present system of medical practice has reached a new high. There is every reason to believe that such socialistic schemes will continue to be strongly advocated by those in high government office. The medical profession has none to blame save itself if it does not first of all become informed of the possibilities in this legislation, and so informed, does not exert all possible vigor to combat and defeat ultimate adoption. It is certainly later than you may think.

Interest has grown in the adoption of a plan for hospitalization and prepaid medical care benefits in the state. At this time, Arkansas is one of but four states which do not have in operation a Blue Cross, or similar type, of state-wide hospitalization coverage.

The program lists 310 members who served with the armed forces during World War II, as complete a list as it has been possible to compile to date. It is known that there are names which should be added to this list but sufficient information has not been presented to the state office for their inclusion. Two members made the supreme sacrifice. To all who served our country the Society offers thanks, fellowship and a wish that their days in civilian practice with us may be happy indeed.

For the cordial cooperation and enthusiastic assistance of officers and members over the state without which but little would have been accomplished, we humbly and gratefully extend our appreciation.

W. R. BROOKSHER.

L. G. Martin, Councilor, Seventh District, presented his resignation to the House of Delegates and suggested that a returned veteran, Euclid M. Smith, be re-elected to this office which he held upon entering military service.

By motion (Murry-Proctor) the resignation was accepted.

By motion (Henry-Hunt) the following resolution was adopted:

During the past few years and particularly at the present time, considerable thought has been focused on the possible legislative action towards socialized medicine. In addition, Federal legislative bills have been introduced in many states which would create health plans for the people. From coast to coast the medical profession as well as leaders in allied fields have become sensitive to

the implications of such enactments. Everywhere the feeling exists that something will happen and that some change is inevitable. So great has been the threat of Federal control of the medical profession that the American Medical Association empowered its Council on Medical Service and Public Relations to proceed as promptly as possible with the development of a specific national health program with emphasis on the nation-wide organization of locally administered prepayment medical plans sponsored by medical societies. As a matter of fact the April 13th issue of the Journal carries the first of ten articles restating and clarifying the "National Health Program and the Platform Adopted by the American Medical Association."

We in Arkansas must be willing to assume our share of the responsibility in combatting compulsory health insurance or the Wagner-Murray-Dingell bill, and undoubtedly have talked to our respective senators and representatives to Congress on this matter. We have omitted, however, to offer these men any substitute for compulsory health insurance. Our men in Congress want to know that we are serious about offering some satisfactory voluntary health program.

All the county societies received a letter from the president of the Arkansas Medical Society regarding the attitude of the physicians of the state in establishing a state-wide non-profit prepaid hospitalization program and the inauguration of a prepaid medical service plan. These letters returned with an overwhelming majority in favor of establishing these plans. This means, of course, that we are willing to organize our plans and become a part of the national health program of the American Medical Association. It means that we will be willing to be an active group in the fight against compulsory health insurance and in favor of keeping the practice of medicine a free enterprise.

It will be the duty of the Committee on Public Relations and Medical Service to work out the details of the programs and to present their reports and recommendations to the Council and House of Delegates of the Arkansas Medical Society for adoption or rejection. Many of the delegates to the state Society received booklets on hospital service plans and non-profit medical service plans which outlined briefly the operation of these plans.

As most of you know, one of the most popular non-profit hospitalization plans is the Blue Cross plan which operates in 44 states (Mississippi, Wyoming, Nevada and Arkansas are the exceptions) and has a membership of over 20 million. It has grown to this proportion in a period of 15 years. There are in operation 31 medical and/or surgical plans operated in coordination with approved Blue Cross hospital plans. I pointed out that Arkansas is one of four states which does not have a state-wide hospitalization plan. Many of the state societies are inaugurating state-wide prepaid medical and/or surgical programs at their meetings this spring. The need for such plans in Arkansas is obvious.

The cost of instituting such a state-wide program is around 20 thousand dollars. The various societies indicated a desire to underwrite a proportionate share of this amount. These programs can succeed only with the wholehearted cooperation of the physicians and generous financial support.

Since these programs mean so much for the control of medicine as a free enterprise and fill so well the needs of

the present day trends in the United States, I herewith submit the following resolution:

Whereas, the majority of the membership of the Arkansas Medical Society has indicated a desire to inaugurate a non-profit prepaid hospitalization program and a prepaid medical care program, and

Whereas, the Committee on Medical Service and Public Relations has been appointed to proceed with investigations and surveys, and

Whereas, time is an important factor; therefore

Be it resolved that this committee be empowered to proceed. The committee begs the indulgence of the House of Delegates and respectfully requests that authority of adoption or rejection of the committee's reports and recommendations be delegated to the Council of the Arkansas Medical Association, and that a concrete plan for adoption or rejection be then brought before a called session of the House of Delegates.

The House proceeded to discussion of the following amendment proposed at the 1944 annual session:

An active member who shall have attained his eightieth year and shall have been a member of his county medical society in Arkansas or elsewhere in the United States continuously since beginning the practice of medicine, or who for fifty years shall have been continuously a member of his county medical society in Arkansas or elsewhere in the United States, shall, upon establishing the above facts to the satisfaction of his county medical society, and upon the recommendation of such society, be granted the status of a life member. Such member shall enjoy full membership privileges and shall be exempt from the payment of further dues or assessments. An active member in good standing in his county society may, upon the recommendation of such society, be granted affiliate membership with full voting and other privileges where one or more of the following conditions exist: retirement from active practice, physical or other disability of a character preventing the practice of medicine, a serious and prolonged illness, or financial reverses.

Affiliate membership shall be on an annual basis only and a member must be recommended each year for such special status by the secretary and president of his county medical society following a review and reassessment of his particular situation. An affiliate member shall enjoy full membership privileges and shall be exempt from the payment of dues and assessments during the year in which he is granted such status, and a certificate of membership shall be issued to him for such year.

A motion of McVay-Gilliam for rejection of the amendment was defeated by a rising vote.

By motion (Hunt-Rush) the amendment was adopted.

The House then proceeded to the selection of the following nominating committee: 1st District, L. H. McDaniel; 2nd District, S. J. Allbright; 3rd District, C. N. Bogart; 4th District, H. T. Smith; 5th District, R. C. Kennerly; 6th District, L. J. Kosminsky; 7th District, Geo. B. Fletcher; 8th District, Hoyt R. Allen; 9th District, D. K. McCurry, and 10th District, E. F. Ellis.

The House of Delegates then adjourned at 12:15 p. m.

SCIENTIFIC SESSION

Monday Afternoon, April 15, 1946

The meeting was called to order by President Archer at 1:40 p. m.

The secretary announced that the flowers on the rostrum were presented by the family of the late W. T. Wootton, Past-President, with a card "From One Who Loved All of You."

The invocation was given by the Rt. Rev. Msgr. John J. Healy, Director of Catholic Hospitals, Little Rock.

Mayor Dan Sprick, Little Rock, welcomed the Society to Little Rock.

Hoyt R. Allen, President, Pulaski County Medical Society, welcomed the Society.

Fount Richardson, Fayetteville, responded to the addresses of welcome.

This is, indeed, a happy occasion. The words of welcome that have been spoken to us by Mayor Sprick and Dr. Allen, the president of the Pulaski County Medical Society, can find an echo in the hearts of all the physicians and their wives, who are beginning again their annual pilgrimage to the meeting of the Arkansas Medical Society. This is not an ordinary meeting. For the past four or five years a number of the physicians have been deprived of a chance to come to a meeting of the Society. It is likely, however, that those doctors who were scattered from Burma to the Solomon Islands, or from Alaska through Europe to the Middle East, have been held together by the bonds of their organization, which have been held by monthly letters from our state secretary.

It is likely that every April that is past, while some of our physicians were away in the wars, has brought back memories of these annual meetings. There can be no doubt but that the words of welcome that we have heard are not even sufficient to express the pleasure of being able once more to come back to this meeting.

We are glad to once again attend this meeting because we will renew ties of friendship that have existed for many years. We will make new ties which will live for many years to come. We will form in this great fraternity and in this organization, a strength from our unity that will enable us to attack with vigor and determination any problem which is for the good of the medical profession of our state.

Vice-President Fred Hames took the chair.

President Archer read the Annual President's Address (page 1).

The scientific program then followed in order.

"The Physician's Responsibility in Venereal Disease Control," D. W. Goldstein, Fort Smith, discussed by L. G. Martin, Hot Springs National Park, E. J. Easley, Little Rock, and D. W. Goldstein, in closing.

J. Harry Hayes, Little Rock, introduced Howard Mahorner, New Orleans, who presented "Surgical Experience with Vascular Diseases of the Extremities" (lantern demonstration).

"Foot Disabilities" (lantern demonstration), F. Walter Carruthers, Little Rock.

"What Is Wrong with the Dyspeptic Whose Findings Are All Negative," W. C. Alvarez, Rochester, Minnesota.

"X-ray Treatments in Common Minor Ailments" (lantern demonstration), D. A. Rhinehart, Little Rock, discussed by D. W. Goldstein, Fort Smith, and Fred Hames, Pine Bluff.

SECOND GENERAL SESSION

Monday Evening, April 15, 1946

J. William Thompson, St. Louis, presented "The Development of Prepaid Medical Service in the United States."

THIRD GENERAL SESSION

Tuesday Morning, April 16, 1946

The meeting was called to order at 9:25 a. m. by Vice-President Owens.

The scientific program was then presented in order.

"A Consideration of the Surgical Complications of Amebiasis in the Colon" (lantern demonstration), D. B. Stough, Hot Springs National Park, discussed by C. S. Moss, Hot Springs National Park, and J. K. Donaldson, Little Rock.

"Management of Surgical Lesions of the Rectosigmoid Region" (lantern demonstration), L. P. Good, Texarkana, discussed by Ralph E. Crigler, Fort Smith, and Howard Mahorner, New Orleans.

"Trends in Tuberculosis Control Procedures," Hebert R. Edwards, New York, New York.

"Tuberculosis Control Activities of the Arkansas State Board of Health," A. C. Curtis, Little Rock. The papers of Drs. Edwards and Curtis were discussed by A. C. Shipp, Little Rock, and J. D. Riley, State Sanatorium.

"Pituitary-Ovarian Relationship," Jos. H. Sanderlin and William B. Harrell, Little Rock, was read by William B. Harrell and discussed by Jos. H. Sanderlin.

MEMORIAL SESSION

April 16, 1946

The meeting was called to order by President Archer at 11:30 a. m.

The invocation was given by Rev. E. D. Gallo-way, Pulaski Heights Methodist Church, Little Rock.

Miss Marion Tipton, accompanied by Mrs. David Tipton, sang "Eye Hath Not Seen."

Mrs. C. E. Kitchens, DeQueen, read the names

of the deceased members of the Auxiliary:

Mrs. R. M. Blakely, Little Rock.

Mrs. J. S. Kolb, Clarksville.

Mrs. L. G. Martin, Hot Springs.

Mrs. J. O. Rush, Forrest City.

Mrs. J. S. Southard, Fort Smith.

Mrs. L. M. Weast, Yellville.

Mrs. J. T. Thompson, Yellville.

Mrs. N. B. Burch, Hot Springs.

C. W. Dixon, Gould, gave the Memorial Address and read the names of the deceased members.

IN MEMORIAM

Martin L. Cantrell, Marked Tree, April 19, 1944.

William Turnor Wootton, Hot Springs, May 2, 1944.

George W. Fletcher, Montrose, May 23, 1944.

Walter G. Allison, Hope, May 24, 1944.

Elbert L. Watson, Newport, June 3, 1944.

Milton C. John, Stuttgart, June 9, 1944.

James L. Merrell, Walnut Ridge, June 12, 1944.

Jesse A. King, Elaine, August 7, 1944.

William M. Kober, Little Rock, August 29, 1944.

Charles N. Martin, Warren, September 7, 1944.

Burtrum L. Ware, Fort Smith, October 12, 1944.

Edmond W. Wood, Marshall, October 20, 1944.

Charles S. Means, Fort Smith, November 21, 1944.

George L. Henderson, Conway, November 23, 1944.

Clyde L. McNeil, Rogers, November 24, 1944.

Nall C. McCown, Forrest City, November 25, 1944.

Hira C. Baker, Jr., Garfield, December 18, 1944.

Junius Ruth, Rison, January 6, 1945.

Madeline M. Melson, Little Rock, January 12, 1945.

Augustus G. Lee, Texarkana, January 17, 1945.

Fergus O. Mahony, El Dorado, February 6, 1945.

Sidney J. Wolferman, Fort Smith, February 18, 1945.

Clib B. May, Little Rock, February 23, 1945.

H. D. Robinson, Manila, February 25, 1945.

William C. King, Helena, March 27, 1945.

George D. Counts, Wesley, April 18, 1945.

Norris C. Hodge, Marianna, April 21, 1945.

William T. Thorn, Marked Tree, May 1, 1945.

Eugene A. Callahan, Carlisle, May 29, 1945.

William T. Bradley, Blackton, May 30, 1945.

Clyde B. Callen, Fayetteville, June 8, 1945.

William W. Ward, Alexander, June 18, 1945.

James C. Cunningham, Little Rock, June 18, 1945.

Lee O. Greene, Pea Ridge, July 4, 1945.

Amos E. Robinson, Leachville, July 5, 1945.

Albert S. J. Collins, Monticello, July 27, 1945.

Alvin B. Caldwell, Forrest City, July 28, 1945.

Wallace L. Brittain, Conway, September 4, 1945.

Dewell Gann, Sr., Benton, September 25, 1945.

Woodye A. Winter, Widener, September 29, 1945.

James W. Sexton, Dover, October 4, 1945.

Marion B. Leverett, McGehee, October 19, 1945.

James T. Wood, Sweet Home, December 1, 1945.

Edward C. McDaniel, Tyrone, December 4, 1945.

Bert B. Bruce, Alma, December 13, 1945.

John S. Wilson, Monticello, January 7, 1946.

Benjamin H. Hawkins, Mena, January 13, 1946.

Benjamin D. Luck, Sr., Pine Bluff, January 23, 1946.

Robert Q. Patterson, Little Rock, January 23, 1946.

C. Alonzo Harding, Ashdown, January 29, 1946.

Edward E. Barlow, Dermott, February 6, 1946.

Charles H. Nims, Hot Springs, February 6, 1946.
 Charles C. Reed, Sr., Little Rock, February 16, 1946.
 C. J. Campbell, Mulberry, February 28, 1946.
 Raymond W. Whittier, Little Rock, March 1, 1946.
 James F. Hays, Augusta, March 13, 1946.
 J. P. Baker, West Helena, March 28, 1946.

Miss Marion Tipton, accompanied by Mrs. David Tipton, sang "Twenty-third Psalm."

The benediction was given by Rev. E. D. Galloway.

FOURTH GENERAL SESSION

Tuesday Afternoon, April 16, 1946

The meeting was called to order at 1:50 p. m. by President Archer.

The scientific program proceeded in order.

"Injuries Involving the Accessory Nasal Sinuses," Ellery C. Gay, Little Rock.

"Acute Surgical Infections of the Kidney," T. D. Brown, Little Rock.

"Vascular Changes in the Ocular Fundus Dueno Systemic Disease" (lantern demonstration), W. R. Buffington, New Orleans.

"Diagnostic Aspects of Ruptured Intervertebral Disks," Jos. F. Shuffield and Robert Watson, Little Rock, read by Robert Watson, and discussed by B. A. Rhinehart, Jos. F. Shuffield, Geo. V. Lewis and Robert Watson, in closing.

Fred Hames introduced George F. Larson, Harrisburg, Pennsylvania, who presented "Lay Cancer Education and the Physician."

"Carcinoma of the Thyroid," J. Harry Hayes, Little Rock.

SECTION OF EYE, EAR, NOSE AND THROAT

Chairman, Raymond Cook

Secretary, K. W. Cosgrove

The Section met in Room 212, Hotel Marion, at 9:30 a. m. The following scientific program was presented:

"Use of Radium in Eustachian Tubal Obstruction," John W. Smith, Little Rock.

"Nasal Plastics," Ellery C. Gay, Little Rock.

"Etiology and Treatment of Glaucoma Preceding and Following Cataract Extraction," W. R. Buffington, New Orleans.

A round-table luncheon and business meeting followed.

Officers elected are: E. C. Moulton, Fort Smith, chairman; Virgil L. Payne, Pine Bluff, vice-chairman, and K. W. Cosgrove, Little Rock, secretary.

Tuesday Evening, April 16

Members and guests were honored by the Pulaski County Medical Society at a social hour in the Hotel Marion, followed by a buffet dinner and dancing.

FIFTH GENERAL SESSION

Wednesday Morning, April 17, 1946

The meeting was called to order by President Archer at 9:20 a. m.

The scientific program proceeded in order.

"Control of Bleeding in Pelvic Cancer," Fred Hames, Pine Bluff.

"Observations on Early Ambulation Following Surgical Procedures," Henry G. Hollenberg, Little Rock.

Fount Richardson, Fayetteville, introduced Hardy A. Kemp, Detroit, who presented "The Michigan State Medical Society's Plan for Providing Practice Arrangements with Beneficiaries of the Veterans Administration."

Roland A. Klemme, St. Louis, presented a motion picture on "Major Neuralgias."

FINAL SESSION, HOUSE OF DELEGATES

Wednesday Afternoon, April 17, 1946

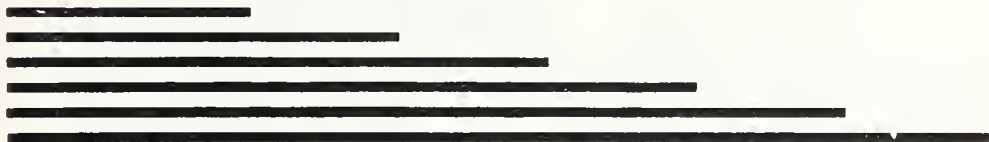
The meeting was called to order by President Archer at 2 p. m.

The secretary called the roll.

The following delegates and members seated as delegates by action of the House of Delegates were present:

ARKANSAS—S. A. Drennen; ASHLEY—E. L. Davis; BOONE—D. L. Owens; CARROLL—D. K. McCurry; CHICOT—S. W. Douglas; CLAY—F. H. Jones; CLEVELAND—W. G. Hancock; CRAIGHEAD-POINSETT—J. H. McCurry; CRITTENDEN—L. C. McVay; CROSS—A. F. Barr; FAULKNER—L. S. Dunaway; GRANT—Miles F. Kelly; HEMPSTEAD—G. E. Cannon; HOWARD-PIKE—W. H. Toland; INDEPENDENCE—R. C. Hooper; LAWRENCE—W. W. Hatcher; LINCOLN—B. M. Gardner; LITTLE RIVER—E. W. Yates; MILLER—H. E. Murry; MISSISSIPPI—F. L. Husband; MONTGOMERY—J. B. Stueart; NEVADA—O. G. Hirst; OUACHITA—W. C. Magness; PHILLIPS—J. W. Butts; POPE-YELL—W. O. Young; PULASKI—Hoyt R. Allen, R. J. Calcote, E. J. Easley, E. C. Gay, F. W. Harris, H. G. Hollenberg, J. N. Roberts, Harvey Shipp; SEARCY—H. J.

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The Secretary read the report of the Nominating Committee:

The following additional members of the House of Delegates were present: President Archer; President-Elect Wade; Vice-Presidents Owens, Dickinson and Hames; Councilors M. C. Crandall, L. T. Evans, J. G. Gladden, Earle H. Hunt, M. J. Kilbury, C. E. Kitchens, P. W. Lutterloh and S. A. Thompson; Past-Presidents S. J. Allbright, H. Fay H. Jones, L. J. Kosminsky, M. E. McCaskill, M. L. Norwood, R. B. Robins and H. T. Smith, and Secretary Brooksher.

President-Elect—L. T. Evans, Batesville; W. G. Hodges, Malvern.

1st Vice-President—J. Harry Hayes, Little Rock.

2nd Vice-President—W. G. Eberle, Fort Smith.

3rd Vice-President—H. A. Stroud, Jonesboro.

Treasurer—Paul L. Mahoney, Little Rock.

Secretary—W. R. Brooksher, Fort Smith.

Councilor, 2nd District—M. C. Hawkins, Jr., Searcy.

Councilor, 4th District—M. C. Crandall, Wilmot.

Councilor, 6th District—R. C. Dickinson, Horatio.

Councilor, 7th District—E. M. Smith, Hot Springs.

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C. A. CHURCHILL, A. B., M. D.
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A. GRAMMEY, A. B., D. D. S.
Dental Surgery

R. C. HOOPER, B. S., M. D.
Urology, Cardiology
J. J. MONFORT, B. S., M. D.
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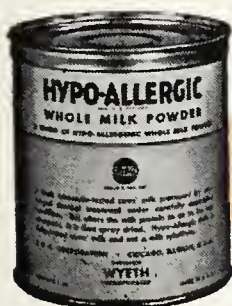
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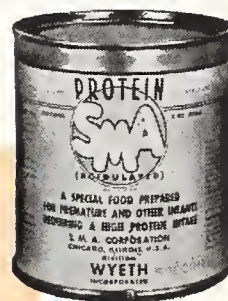
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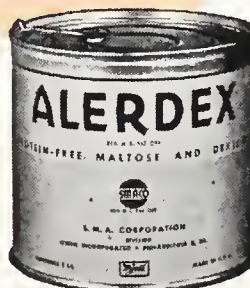
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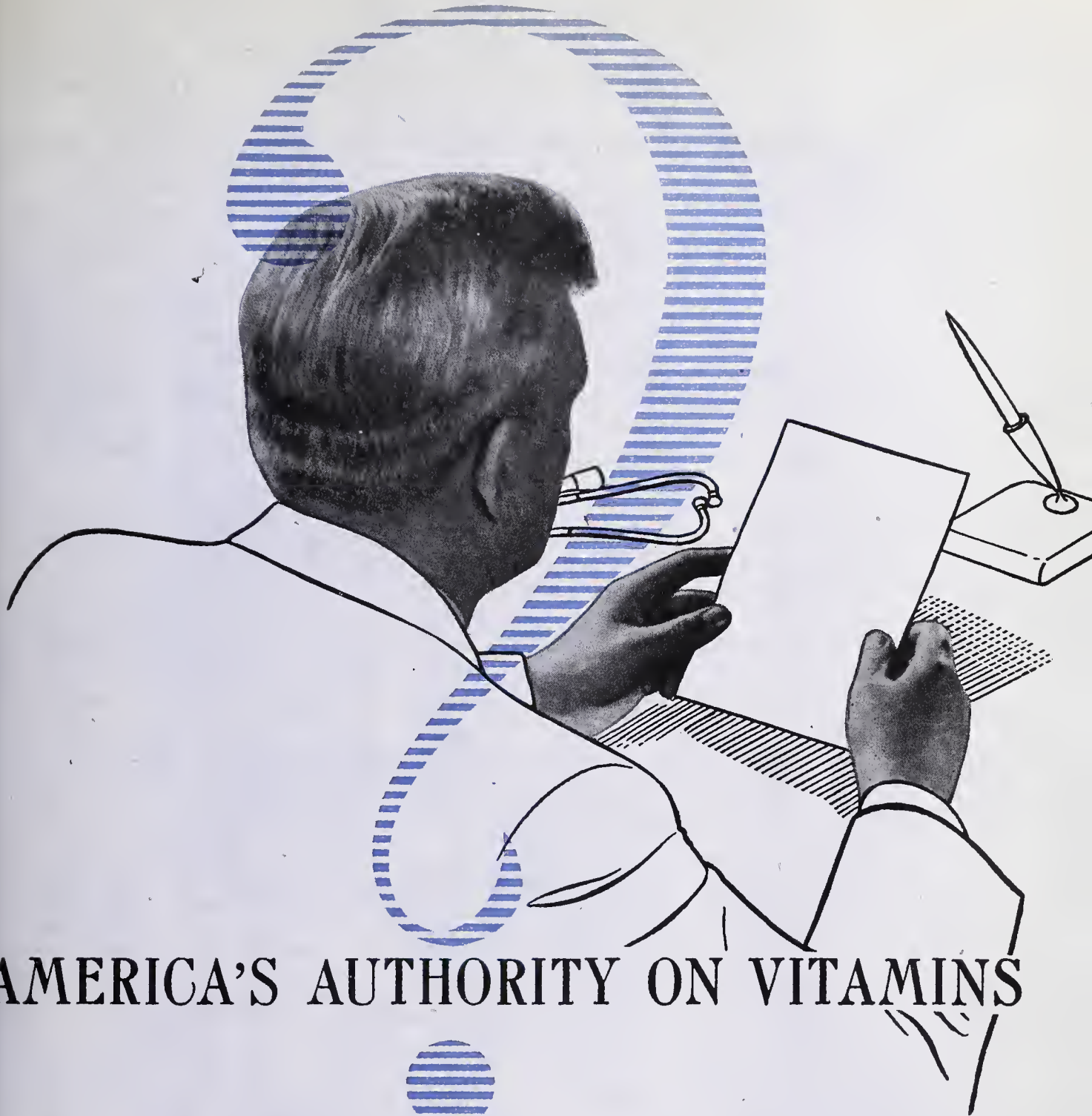
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1. Freed, S. C., and Greenhill, J. P. (1941), *J. Clin. Endocrinol.*, 1:983, December.

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Councilor, 8th District—Ellery C. Gay, Little Rock.

Councilor, 10th District—Earle H. Hunt, Clarksville.

Delegate, American Medical Association—L. J. Kosminsky, Texarkana.

Alternate, American Medical Association—C. A. Archer, DeQueen.

By motion (H. T. Smith-J. B. Stueart) the report of the Nominating Committee was received.

By motion (Butts-Harris) all nominees except that of President-Elect were declared unanimously elected.

President Archer appointed H. Fay H. Jones, W. W. Verser and P. W. Lutterloh as tellers and the House balloted on the nominations for President-Elect. By the ballots, L. T. Evans was elected President-Elect.

Fred H. Krock read the report of the Reference Committee.

REPORT OF THE REFERENCE COMMITTEE

President's Report

We wish to commend the president for the excellent conduct of his administration and for the report of his office for the past year, and particularly for the first-hand report on the activities of the Public Relations Conference of the American Medical Association held in Chicago. We approve the report in its entirety and advise the adoption of all recommendations, especially the one calling for a unified plan for the care of veterans in their immediate home vicinity by physicians and hospitals of their own choice, modeled after the Kansas State Plan. We suggest that if this plan be approved by the House of Delegates that representatives with authority to act, preferably the president, secretary and chairman of the Council of the Arkansas Medical Society, be sent to the conference with Major General Paul R. Hawley, acting surgeon-general of the Veterans Administration, at Wichita, Kansas, on April 21st.

Committee on Scientific Work

We wish to commend this committee for the excellent program which they have arranged for this meeting.

Committee on Medical Legislation

While the report of the chairman of this committee is somewhat discouraging in the apparent inability of the state to enforce the Basic Science Law, with respect to the licensing of chiropractors, it is hoped that the coming ruling of the Supreme Court of the state on this matter will effect improvement.

Committee on Medical Education and Hospitals

We wish to commend this committee for the excellent report which it has rendered and for the recommendations which have been offered. We particularly wish to emphasize the following measures for approval:

1. That a committee be appointed to study the problem of financing medical fellowships by legislation or other means for a limited number of students in the

University of Arkansas Medical School with the proviso that they locate for a specified number of years in designated rural areas following graduation and internship.

2. That it be recommended to the Board of Trustees of the medical school that arrangements be made by the medical school to receive and collect from all patients able to pay, a small fee sufficient to pay for drugs and supplies consumed by such patients, the sum collected in no case to be more than the actual cost of such drugs or supplies, and provided that patients who are unable to pay, will be treated without cost.

3. That the Committee on Medical Education and Hospitals cooperate with the Post-Graduate Study Committee in obtaining the full use of the facilities of the medical school for such periods of study as are to be offered in the future.

4. Since it is impossible at the present time and for an indefinite period thereafter to advance the new University Hospital beyond the blueprint stage, it is recommended that the Legislative Committee endeavor to secure the necessary funds or make such other arrangements as may be possible for an immediate increase of 200 beds at the University Hospital, so that the graduates of the medical school may continue to receive the highest class of instruction that may be offered.

Committee on Health and Public Instruction

The report of this committee is to be commended and fully endorsed. We recommend that in the future the statistics incorporated in this report be mimeographed and a copy presented to each member of the Arkansas Medical Society attending the session.

Committee on Medical Economics

This committee is to be commended for calling our attention to the threatening encroachment of socialized medicine upon private practice. We advise the adoption of the report in its entirety, and urge that each member of the society actively support the recommendations to inform business executives and individuals what socialized medicine means, at every opportunity.

Committee on Scientific Exhibit

The excellent exhibits which have been arranged for our information are a guide as to what could be accomplished in this direction, providing more physicians throughout the state would work toward arranging material for exhibitions in the future.

Committee on Cancer Control

We wish to approve this excellent report and recommend its adoption. The committee has made a very notable progress in the development of a program for cancer control since its inception.

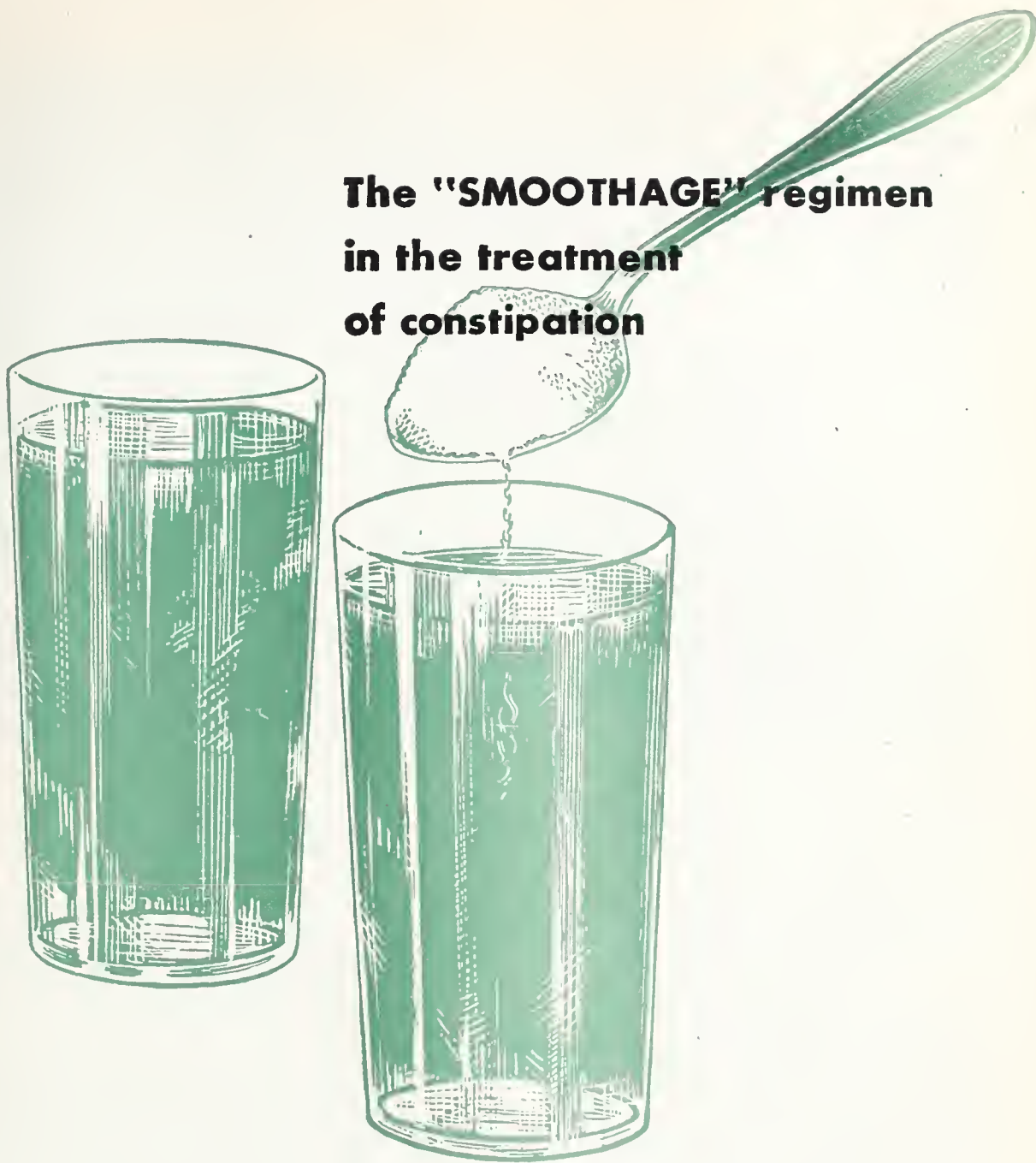
Report of the Committee on the Heart

The methods used by this committee in bringing up to date our scientific knowledge on the problems of cardiology and disseminating such information are to be commended and it is hoped that they will be continued in the future.

Committee on the Study of Midwifery

We wish to advise the acceptance of this report and the adoption of the recommendations contained therein. It is hoped that each physician will study the statistical report contained in this report.

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Maternal and Child Welfare Committee

This committee is to be commended for the excellent work which it has done in this field, in calling our attention to the deficiencies and dangers contained in Bill S-1318 (Pepper bill), and we advise the adoption of the recommendations that this Society thoroughly study the medical care facilities of the state for the care of mothers and children.

Committee on Post-Graduate Instruction

It was with pleasure that the report of this committee was received to the effect that it will now be possible for it to resume its activities of providing post-graduate instruction for our members. It is hoped that the plans presented can be rapidly consummated.

Committee on Syphilis Control

We heartily endorse the comprehensive report which this committee has rendered, and approve the recommendations contained therein for adoption.

Report of the Liaison Committee of the Arkansas Medical Society with the Arkansas Tuberculosis Association

We approve in full this report and particularly recommend that definite steps be taken towards securing effective legislative measures for the control of the public health menace presented by the recalcitrant tuberculosis patient. We feel that the resolution presented by the State Board of Health to this committee concerning the discontinuance of the use of the physicians' signed requests for the tuberculosis case finding X-ray service of the State Board of Health should be adopted, provided that the safeguards to the private practice of medicine presented in this resolution be fully carried out.

Committee on Industrial Health

We are grateful to this committee for bringing before us a report of the activities of the Vocational Rehabilitation Administration, and ask for the approval by the Society of the program outlined, and for its efforts toward providing safeguards for workers in our state against certain well recognized industrial hazards.

Committee on Public Relations and Medical Service

This committee is to be highly commended for the large amount of work it has done and the data it has collected with respect to the establishment of a prepaid medical service plan within our state. We are heartily in accord with the recommendations contained in this report and for the sake of emphasis would like to urge the adoption of the recommendation as follows:

1. That with due precaution a prepaid medical service plan be established in Arkansas, covering hospitalization, surgical, obstetrical, minor office surgery, emergencies in the home, and, if possible, a limited medical service, looking to the inclusion of a more complete coverage from time to time as experience and statistical data warrant. We further recommend that a committee be appointed immediately to work out satisfactory plans for the State of Arkansas, calling in such outside help as hospital administrators, actuarial experts, insurance executives and legal advisers as may be necessary, and that this committee be empowered to put into effect any plan or plans developed at the earliest possible moment after acceptance by the Council and adoption at a called meeting of the House of Delegates.

Advisory Committee to State Institutions

We accept and approve the report of this committee and wish to approve the recommendation that it be suggested to the Baptist Hospital of Little Rock, that the old Shrine Club property which has been recently taken over, be developed into an annex of this hospital for the care of mild nervous and mental cases and cases of alcoholic and narcotic addictions, and pledge the fullest professional cooperation of this Society towards the development of such an institution.

State Medical Board

We accept this excellent report and recommend its adoption in full.

State Cancer Commission

The report of the activities of this Commission is appreciated. It would seem, however, that the duties of this Commission overlap to a certain extent those of the Committee on Cancer Control, and it is felt that perhaps a close liaison between the two could be effected in the interests of efficiency. It is further felt that at the present time the establishment of an institution for the care of indigent cancer cases is not feasible.

Report of Council

The report of the Council is approved in its entirety.

Report of Treasurer

This report is approved.

Report of Secretary

The large amount of detail work carried out by the Secretary evidenced in this report is very commendable, and particularly gratifying is the increase in income for the Journal from advertising.

Report of Council

The report of Hon. Peter A. Deisch is to be commended because of the clearness with which he has discussed the standing of the Basic Science Act as related to the reciprocal licensing of chiropractors.

By motion (Kosminsky-Toland) the report was adopted.

By motion (Jones-Husband) the thanks of the Society were expressed to the Pulaski County Medical Society, the Hotel Marion, the Chamber of Commerce, the press and the guest speakers.

S. A. Thompson read the report of the Council.

REPORT OF COUNCIL

April 15. Appropriated one hundred dollars for publication of Auxiliary Yearbook. Nominated Earle H. Hunt and W. R. Brooksher to the Governor for appointment to the Arkansas State Cancer Commission.

April 16th. Appropriated funds for school essay contest on cancer education. Allowed honorarium for secretary and counsel.

By motion (Murry-Harris) the report was adopted.



Let your HEAD take you

(The average American today has a choice of just going where "his feet take him", or choosing wisely the course to follow. Let's skip ahead 10 years, and take a look at John Jones—and listen to him . . .)

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"This house—I wouldn't swap a shingle off its roof for any other house on earth. This little valley, with the pond down in the hollow at the back, is the spot I like best in all the world.

"And they're mine. I own 'em. Nobody can take 'em away from me.

"I've got a little money coming in, regularly. Not much—but enough. And I tell you, when you can go to bed every night with nothing on your mind except the fun you're going to have tomorrow—that's as near Heaven as man gets on this earth!

"It wasn't always so.

"Back in '46—that was right after the war and sometimes the going wasn't too easy—I needed cash. Taxes were tough,

and then Ellen got sick. Like almost everybody else, I was buying Bonds through the Payroll Plan—and I figured on cashing some of them in. But sick as she was, it was Ellen who talked me out of it.

"Don't do it, John!" she said. "Please don't! For the first time in our lives, we're really saving money. It's wonderful to know that every single payday we have *more* money put aside! John, if we can only keep up this saving, think what it can mean! Maybe someday you won't have to work. Maybe we can own a home. And oh, how good it would feel to know that we need never worry about money when we're old!"

"Well, even after she got better, I stayed away from the weekly poker game—quit dropping a little cash at the hot spots now and then—gave up some of the things a man feels he has a right to. We didn't have as much fun for a while but we paid our taxes and the doctor and—we didn't touch the Bonds.

"What's more, we kept right on putting our extra cash into U. S. Savings Bonds. And the pay-off is making the world a pretty swell place today!"

The Arkansas Medical Society

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By motion (Stueart-Drennen) the House of Delegates adjourned.

FINAL GENERAL SESSION

Wednesday Afternoon, April 17, 1946

Immediately following the adjournment of the House of Delegates, the final general session of the Society was called to order by President Archer with the following Past-Presidents seated on the rostrum: S. J. Allbright, H. Fay H. Jones, L. J. Kosminsky, M. E. McCaskill, M. L. Norwood, R. B. Robins and H. T. Smith.

H. Fay H. Jones and H. T. Smith escorted President Wade to the rostrum.

President Archer presented the Society's gavel to President Wade with an expression of pleasure in installing him as President and every good wish of the Society.

President Wade replied: "In receiving this gavel, I realize that it carries with it a great deal of responsibility. I shall try to serve this Society as well as those seated here. Every man here feels that this will be one of our most active organization years and that none of us can lay down. In accordance with the action of the House of Delegates this afternoon on prepaid medical care and hospitalization insurance, I wish to announce that the following committee is appointed to carry out the wishes of the Society: Charles R. Henry, Little Rock, chairman; H. A. Higgins, Little Rock; Ellery C. Gay, Little Rock; Alan G. Cazort, Little Rock; S. A. Thompson,

Camden; B. L. Moore, El Dorado; and P. W. Lutterloh, Jonesboro. We shall expect you to go to work, meeting as soon as you can. When you have plans ready, the Council will meet with you for discussion and the House of Delegates will then meet for final decision on such plans as may be proposed."

A. F. Barr and C. R. Henry escorted President-Elect Evans to the rostrum where he was welcomed by President Wade who stated that personally he felt that Dr. Evans should have been elected to this office long ago.

President-Elect Evans expressed his appreciation to the Society on his election and promised his best efforts.

Invitations for the 1947 annual session were extended by Hoyt R. Allen for Little Rock and W. G. Eberle for Fort Smith. On a rising vote, the invitation of Little Rock was accepted.

The Past-Presidents seated on the rostrum were then introduced.

President Wade congratulated C. A. Archer on the splendid year the Society had under his administration and expressed the appreciation of the Society for his work.

The Society then adjourned sine die.

REGISTRATION, 1946 SESSION

Members	415
Visitors	94
Exhibitors	38

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LITTLE ROCK, ARKANSAS, JULY, 1946

No. 2

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The JOURNAL

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PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIII

LITTLE ROCK, ARKANSAS, JULY, 1946

No. 2

EARLY AMBULATION FOLLOWING SURGICAL PROCEDURES*

HENRY G. HOLLENBERG, M. D.
Little Rock

There has always been great difference of opinion and practice as regards the extent of physical activity allowed patients following serious illnesses and major operations. On the whole, and until very recent years, modern practice has demanded rather prolonged recumbency.

But in very recent years, as you are well aware, there has been much serious thought and much discussion concerning the dangers of even relatively prolonged bed-rest. This thinking has caused a revision of practice, which at first took the form of advising exercises of extremities, deep breathing, and active turning while in bed. Earlier rising from bed was then used successfully by many men and finally early ambulation. As now practiced in many clinics this means that the patient who has had a major operation upon the head, neck, chest, abdomen, pelvis, etc., is encouraged to stand and to sit up within 24 hours and thereafter. He may stand to void the day of operation and is encouraged to walk about the corridors freely after 3 or 4 days. Obviously certain types of cases are not included in this program—toxic goitre cases, patients with peritonitis, pneumonia, skin grafts, and others. But one does include skull fractures, simple craniotomies, non-toxic goitre cases, even the most extensive chest operations, radical breast operations, and all abdominal operations. Some clinics include gynecologic plastic operations of all types. Such a radical change in treatment requires a radical change in our thinking. The program at first sounds so revolutionary and foolhardy that we are inclined to dismiss it entirely. One wonders about legal liability in addition to the safety of his patients. This has certainly been my own first reaction. But one is forced to consider the opinions and arguments of many excellent men who advocate it.

I should like first to give briefly some of the arguments and then to present the opinions of a number of men who have been writing on the subject and others who have been kind enough to answer my personal inquiries.

These arguments may best be discussed under the anatomical regions or physiological functions involved.

Chest and Lungs

There is little doubt but that prolonged rest in bed is undesirable from the standpoint of the lungs. Respiratory complications in the form of atelectasis, massive collapse and pneumonia are encouraged by the recumbent position. The coughing incident to these complications is in itself a danger as regards evisceration and hemorrhage. Early rising encourages deeper breathing and better discharge of secretions. It is generally agreed that such early rising discourages complications within the lungs.

Elimination of Gastro-Intestinal Tract

There is also little doubt but that prolonged recumbency retards peristalsis and for various reasons hinders the passage of gas and feces. The mechanical difficulties alone are considerable. Early rising eliminates many of these disagreeable and undesirable factors.

Evacuation of Urine

It is, of course, well known that patients in bed have difficulty in voiding greater than when sitting up or standing. Early rising and ambulation avoid this discomfort and the dangers inherent in over distention of the bladder and in catheterization.

Phlebitis and Embolism

This is one of the most important considerations. Phlebitis and embolism are two of the most dreaded complications. It is well established that these thromboses originate in the veins of the lower leg and extend into the deep veins of the thigh. Such thromboses are encouraged by the constant pressure of the legs on the bed, by collapse of the peripheral veins in recumbency, by abdominal distention and its pressure on the vena cava and iliacs retarding return circulation, and by shallow respiratory movements which furnish inadequate negative intrathoracic pressure for sucking blood upward. All of these factors

*Read before the 70th Annual Meeting of the Arkansas Medical Society, April 17, 1946, Little Rock.

causing thromboses are encouraged by recumbency and are discouraged by early rising. We have all seen the tragic cases where pulmonary infarcts or fatal emboli occur with little warning upon rising after prolonged recumbency. In these cases there has been the formation of a clot within the collapsed vein while recumbent. After rising, the veins are again distended, the clot is torn from a great part of the vein wall and finally becomes detached and free to travel upward to the lungs. While relief from this danger may be obtained in appropriate cases by the administration of heparin and dicumerol and in other cases by the ligation of large veins in the thigh or lower abdomen, both forms of treatment are much more formidable and dangerous than early rising as a preventive measure from the start.

General Health and Morale

Increased physical activity while in bed and early rising promote better circulation in general, more normal function of the various systems of the body, better appetite and elimination, and have an indirect but favorable effect upon many features of physical recovery. The mental state of most patients who are anxious to be up is improved by their doing so. Undoubtedly the metabolism of bones is improved by activity and the proper functioning of joints and muscles is encouraged in almost all instances by more normal usage.

Wound Healing and Disruption of Wounds

It is around these points, and very properly so, that the greatest controversy revolves. This is the point which demands the closest scrutiny. It is quite probable that many types of wounds heal more kindly with absolute rest for a certain period. Early rising very probably results in an increased number of haematomata. Certainly this will be so unless all sizable vessels are secured.

The problem of wound disruption and evisceration is a prominent one only in abdominal wounds. The concern along this line is not serious in the early rising of patients having operations upon the head, neck, chest, and extremities.

It requires a great deal of deliberation for a surgeon to convince himself that types of operative procedures which he has formerly kept flat in bed for two weeks are quite safe up and about in 24 or 48 hours. There is a great deal of evidence accumulating to the effect that they are as safe or safer as regards evisceration, in addition to being safer from the point of view of other complications. If one will palpate his own abdomen sitting, standing, or walking about, he

will note that the abdominal muscles are not tense and that there is no great pressure upon them. If he coughs, however, either lying down or in any other position, there is great tension and pressure. The danger of evisceration of abdominal wounds is from coughing. In view of the increased pulmonary complications during prolonged bed rest, there is a great instance of cough when such complications are present.

For those who are interested in the literature on this subject, I recommend highly a symposium of articles published in the Journal of the American Medical Association in August, 1944 (1). Advocacy of these principles was brought forward in these articles by Dr. Tinsley Harrison from the medical point of view, Dr. Eastman from the point of view of obstetrics, by Dr. Powers from the point of view of general surgery, Dr. Ghormley from the point of view of orthopedics, and Dr. Menninger from the point of view of psychiatry. Another interesting symposium is published in the New York State Journal of Medicine in April, 1944 (2). Dr. Powers has comparable statistics on complications in two of his own large series of consecutive cases. He reaches the conclusion that all complications, including wound disruptions, are appreciably less in the cases allowed up early than in those who were left at bed rest.

In response to letters of inquiry I have the following: Dr. Glenn Bell (3), Associate Professor of Surgery at the University of California, says "In regard to early ambulation, we have been following that now for 3½ to 4 years. We have used it in well over 1,000 cases. So far we have no disadvantages. There are many advantages. We are enthusiastic about it. So are our patients."

Dr. Deryl Hart (4), Professor of Surgery at Duke University, says "We are using early ambulation extensively in our surgical cases and feel that it is a considerable improvement over the old method."

Dr. L. P. Riba (5), a prominent urologist of Chicago, Illinois, reports that he is using it in many of his cases and that Dr. Richter and others of their general surgeons are enthusiastic about it.

Dr. John Burch (6), of Nashville, Tennessee, has used it most consistently and says "It should catch on pretty rapidly. It seems to me to be the solution to a good many of our hospital problems."

Dr. George Heuer (7), Professor of Surgery at Cornell and Chief of Surgery at the New York Hospital, says "We are getting patients up

earlier and earlier and thus far we have found few contra-indications to this practice."

Dr. Richard Cattell (8), of the Lahey Clinic, states that they are not using it, but are pursuing a middle course and may advance the time.

Dr. Harvey Stone (9), of Baltimore, is not convinced that it is any improvement over his old plan and is not using it. He is not actively opposed. He states that Dr. Firor and Dr. Reinhoff, at Johns Hopkins, are using it considerably.

Dr. Charles Mays writes that he is getting appendices and hernias up on the second day and other cases a little later.

Numerous published papers by Jackson (10), of Madison, Wisconsin; Spang (11), of Duluth, Minnesota; Steinhart (12), of Los Angeles, California; etc., give extensive reports of cases in support of the plan. These reports are therefore from all parts of the country. It is perhaps quite pertinent that there are no writers who are vociferously opposed.

One asks if any particular type of wound closure is required. I personally feel that it is necessary to utilize a meticulous technic as to the control of bleeding points and accurate approximation of various layers and preferably the use of non-absorbable suture material in the fascia of abdominal wounds. There are many advocates who use absorbable suture material entirely, though in these cases I would feel that retention sutures should be utilized also. Some advocates use catgut throughout without retention suture.

For those who are interested in this development and who would be interested in trying it in their own cases, I would recommend, for their own peace of mind, that they begin with less formidable procedures such as appendectomies through a muscle splitting incision. They will likely find the practice highly pleasing and will gradually extend its use to more extensive types of operations. There is one word of warning which is being stressed by a number of men. It is probably unwise to make a compromise between this plan and one's previous plan. I refer to an idea that naturally occurs to most anyone—that instead of keeping their patients in bed for 12 days following a formidable procedure that they allow them to arise on the fourth or fifth day. It is thought that this is more dangerous than very early rising or remaining in bed the full period. The consideration here is largely the matter of embolism. If a patient has begun to develop a thrombosis during the first few days of recumbency, it will not be firmly attached to the vein wall in a period of a few days

and may be more readily detached by early rising at that period than if it is allowed to become more firmly attached during a two weeks period. Certainly there are many thrombi in the legs which are relatively silent and which never become detached following the usual method of post-operative care. I, therefore, feel that these patients should be allowed additional activity in the form of rather strenuous bed exercises from the very start if they are to be allowed to be up at an early period, but not the first day or two. This plan has been used extensively in many of our Army hospitals and with great success. Probably the most consistent usage has been at the Brooke General Hospital in San Antonio, where 5,000 cases have been handled in this way. Only one evisceration occurred, and that in a jaundiced individual. All results were strikingly good.

Many South American surgeons are writing extensively in support of the plan. Continental surgeons have, in many places, used it for years.

One naturally wonders about his legal responsibilities in utilizing new forms of treatment. Customary treatment in one's own community is the important point. While this practice is not widely used in Arkansas as yet, there are quite a number of local physicians who do use it.

In addition to the surgical usage as outlined above there are an equal number of obstetricians, internists, and others who find it advisable for the same general reasons.

In conclusion I wish to say that I have brought this matter up for discussion at this meeting not with the idea of urging it upon you with too great enthusiasm, but to attempt to give arguments and opinions concerning it. My own limited usage has been very pleasing to me and to my patients. An earlier convalescence is seen in all cases. But I feel that we shall all proceed cautiously and await the verdict of longer time before embracing the plan unreservedly.

I bring this up for consideration too, as I feel that it will have a direct effect upon two somewhat unrelated matters, namely, hospital construction and nursing service. If this plan of convalescent care is found in the end to be definitely better, it will mean that a somewhat lesser number of hospital beds will be necessary in the first place. It will work to the benefit of hospitalization plans, making the rates lower. It will mean that hospitals should be constructed with more private baths and toilets and more lounging and recreation rooms.

In regard to nursing, there is an appreciable easing of their duties as respects all bed care, bed pans, enemas, catheterizations, and food

trays. At the same time excellent nursing is still required, both for those who can arise early and those who cannot.

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RADIO SERIES DEDICATED TO MEDICAL PROFESSION OPENS OVER CBS JUNE 4

Development of wider public understanding and appreciation of the contribution made by the medical profession and by medical research to the world's health and welfare is the objective of a new series of radio programs inaugurated over the Columbia Broadcasting System on Tuesday, June 4, at 9:30 p.m., Eastern Daylight Saving Time.

The half-hour program, known as "Encore Theater," presents radio dramatizations of famous film, novels, and biographies, dealing with medicine's immortals, as well as with the work, achievements and struggles of thousands of members of the medical profession who, although by-passed by fame, daily are making substantial contributions to the prevention and cure of disease, often at great personal sacrifice. Sponsor of the program is Schenley Laboratories, Inc., which for the past two years has sponsored a somewhat similar program dedicated to the medical profession, "The Doctor Fights."

The programs are designed to underline the scientific achievements of the medical profession, while stressing the human warmth and sympathy which often prompts members of the profession to sacrifice health and even personal life in order to serve others.

MODERN CONCEPTS OF CARDIOVASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman, Ft. Smith

THE FUNCTIONAL CONSEQUENCES OF ACUTE CORONARY OCCLUSION

The outstanding phenomena following acute coronary occlusion are: (1) cardiocirculatory failure characterized by hypotension, feeble pulse, venous congestion, dyspnea, cyanosis, pallor, sweating and so forth, (2) irregular or rapid action of the heart, and (3) pain usually, but not always, agonizing in character and radiating from the region of the sternum outward to the left arm, upward toward the throat (angina), or downward to the epigastrium; at one time the pain may extend in any or all of the directions named.

Analysis on Basis of Experimental Studies

Cardiocirculatory failure. Owing to scant development of anastomotic connections between branches of the three main coronary rami and to high resistance against flow of blood through these connections, occlusion of any one ramus in an otherwise normal heart results in ischemia of the region supplied. As a result, contraction in the region of ischemia ceases approximately within a minute after occlusion has taken place; instead of shortening and moving inward, the wall of the affected portion expands and bulges outward, due to the rise of intra-ventricular pressure occasioned by contraction of unaffected myocardium. The total force for expulsion of blood is thus reduced, not only by loss of function of some of the formerly contracting fractions but also because part of the energy is spent in expanding the noncontracting portion of the ventricular wall. The duration of systole is also reduced somewhat. The immediate effects on the forward movement of blood are: decreased systolic discharge, decreased aortic pressure and a smaller pulse pressure. The effects of back pressure are: dilatation of the ventricles and elevation of pulmonary and venous pressure. Provided the unaffected myocardium is in good responsive condition, compensation is accomplished and normal circulatory balance is restored. Briefly, the sequence of events is this: During initial hypodynamic beats, small unexpelled volumes added to normal filling volumes raise diastolic pressure in the ventricles and stretch the viable muscle. In accordance with the law of initial tension and length (recently re-

viewed in *Mod. Concepts Cardiovasc. Dis.*; Vischer, Maurice B.; Heart Failure) the viable muscle contracts more vigorously than it did before the diastolic pressure in the ventricles was raised, thereby, restoring cardiac output and arterial pressure to normal.

If, however, the viable portion is already damaged functionally, or is operating too near its reserve limit, compensation cannot occur; on the contrary, decompensation may progress even to the point of death. As a result of the lowering of arterial pressure, moderator reflexes over sinus and aortic nerves are released which, together with pain reflexes, cause intense vasoconstriction in the viscera, muscles and skin. Constriction of cutaneous vessels (causing pallor) diverts a considerable volume of blood to internal organs, tends to intensify the engorgement of the viscera and adds to the volume of venous blood that the decompensated myocardium cannot move. The patient appears to be in a state of shock indistinguishable from that caused by loss of blood or plasma, except that an excessive accumulation of blood is found in the internal venous system.

Cardiac irregularities. It long has been suspected that irritable foci develop at the margins of the ischemic portion of the heart. These give rise to occasional, or frequent, premature ventricular contractions or to transient periods of ventricular tachycardia. Occasionally, these centers emit an accelerating series of impulses which eventuate in ventricular fibrillation when the rate of emission becomes critical. The mechanism appears to resemble that produced by application of a direct current to the normal myocardium. Such a current is known to set up a depolarized condition which leads to spontaneous discharges. Similarly, there is evidence that electrotonic differences in potential are set up between normal and ischemic muscles and that these differences give rise to periodic discharges. When the repetitive discharges occur at an accelerating speed, not all of the resulting impulses pass radially to normal fractions of the heart muscle; some are blocked, owing to the presence of refractory portions and the impulses begin to take a zigzag course, thus giving rise to fibrillation.

Pain. Impulses which initiate the pain travel over visceral afferent elements of the cardiac sympathetic nervous system, enter the spinal

cord by white rami of the first to the sixth thoracic nerves inclusive, and pass upward to the thalamus and cerebral cortex. Connections which are made at various levels in their ascent give rise to (a) visceromotor reflexes (increased tonus of thoracic muscles, sense of constriction of chest or throat); (b) viscerovisceral reflexes to the stomach (reduction of tonus, reverse gastric peristalsis and so forth, leading to sinking feeling in the epigastrium, nausea, vomiting and so on); (c) viscerosomatic reflexes causing vasoconstriction in the skin, secretion of sweat (cold, pale, moist skin); (d) referred pains apparently radiating from the sternum.

The terminals of sympathetic nerves that are stimulated apparently are those in the ischemic region but evidence is conflicting as to whether these terminals are distributed throughout the muscle or limited to sheaths of the blood vessels affected. The nature of the stimuli may be chemical but this has not been established. The possibility also must be considered that stretching of the ventricular wall in the ischemic region may act as a mechanical excitant. Such an assumption would explain the amelioration of pain by reduction of arterial pressure and its intensification as pressure rises during decompensation.

Carl J. Wiggers, M. D., Sc.D.
Cleveland, Ohio.

SCHERING THOUSAND DOLLAR AWARD FOR MEDICAL STUDENTS

The Schering Award for 1946, a competition open to undergraduate medical students, has recently been announced. Held annually to encourage medical students to acquire further knowledge of various fields of endocrinology, the subject of this year's thousand dollar prize contest will be, "The Role of Hormones in Sterility." Three judges, each prominent in the field of endocrinology, will make the selections, and the award is sponsored by Schering Corporation of Bloomfield, New Jersey, manufacturers of endocrine and pharmaceutical products for the medical profession. For the best thesis submitted on the subject, an award of five hundred dollars will be given. For the second and third best papers, awards of three hundred and two hundred dollars, respectively, will be given. The Schering Award Committee is again receiving an enthusiastic response from medical students in every section of the United States and Canada.

A RESUME OF THE FOREIGN BODIES REMOVED FROM FOOD AND AIR
PASSAGES FROM OCTOBER 1, 1944, TO OCTOBER 1, 1945

PAUL L. MAHONEY, M. D.
Little Rock

No. Case	Age	Sex	Type F.B.	Location & Sojourn	Tube	Results	Address
1.	3	M	Nickel	Oesophagus, 1 day	7mm. Oes.	Good	No. Little Rock
2.	2½	M	Quarter	Oesophagus, 2 days	7mm. Oes.	Good	Sheridan
3.	15 mo.	M	Open safety pin	Oesophagus, 1 day	7mm. Oes.	Good	Little Rock
4.	17 mo.	M	Tack	Oesophagus, 2 days	7mm. Oes.	Good	Jacksonville
5.	15 mo.	M	Bean	Rt. main bronchus, 3 days	3½mm. Bron.	Died	Zinc
6.	2½	M	Piece pecan	Rt. main bronchus, 2 weeks	3½mm. Bron.	Good	Little Rock
7.	1½	F	Piece pecan	L. main bronchus, 1 week	3½mm. Bron.	Good	No. Little Rock
8.	8	M	Quarter	Oesophagus, 2 days	7mm. Oes.	Good	Bald Knob
9.	13 mo.	M	Peanut	Rt. main bronchus, 4 days	3½mm. Bron.	Good	Warren
10.	2	F	Corn kernel	Bifurcation trachea, 2 days	3½mm. Bron.	Good	Charleston
11.	58	M	Large bone	Oesophagus, 1 day	7mm. Oes.	Good	Pine Bluff
12.	3	F	Large bean	Partially lodged Rt. main bronchus, 3 days	3½mm. Bron.	Good	Cotton Plant
13.	46	F	Large fish bone	Oesophagus, 1 day	7mm., Oes.	Good	Pine Bluff
14.	50	M	Large beef bone	Oesophagus, 8 days	7mm., Oes.	Good	Camden
15.	9	M	Straight pin	Hypopharynx, 2 days	Pharyngoscope	Good	Heber Springs
16.	1	M	Open safety pin	Hypopharynx, 1 day	Pharyngoscope	Good	Little Rock
17.	1	M	½ pinto bean	Rt. main bronchus, 2 days	3½mm. Bron.	Good	Cabot
18.	26	F	Straight pin	Hypopharynx, 1 day	Pharyngoscope	Good	Little Rock
19.	2	M	Nickel	Oesophagus, 1 day	7mm. Oes.	Good	Little Rock
20.	3	F	Tax token	Oesophagus, 1 week	7mm. Oes.	Good	Pocahontas
21.	74	F	Prune seed	Oesophagus, 2 weeks	7mm. Oes.	Good	Bigelow
22.	9 mo.	M	Safety pin	Hypopharynx	Pharyngoscope	Good	Little Rock
23.	18 mo.	F	Small piece bone	Rt. main bronchus, 2 days	3½mm. Bron.	Good	Russellville
24.	1	M	Large pc. lead, 1x½"	Trachea, 3 days	3½mm. Bron.	Good	McGehee
25.	4	F	Nickel	Oesophagus, 2 days	7mm. Oes.	Good	Rosie
26.	5	F	Nickel	Oesophagus, 3 days	7mm. Oes.	Good	Russellville
27.	2	F	Large button	Oesophagus, 1 day	7mm. Oes.	Good	No. Little Rock
28.	15	F	Safety pin	Oesophagus, 2 days	7mm. Oes.	Good	Mt. Home
29.	2	F	Piece shrub	Rt. main bronchus, 1 week	3½mm. Bron.	Good	Wilnot
30.	69	F	Large chicken bone	Oesophagus, 1 day	7mm. Oes.	Good	No. Little Rock
31.	58	M	Large piece meat	Oesophagus, 6 weeks	7mm. Oes.	Good	Bee Branch
32.	70	F	Large piece meat	Oesophagus, 4 days	7mm. Oes.	Died	Little Rock
33.	8	M	Large screw	Rt. main bronchus, 4 days	3½mm. Bron.	Good	Hatfield
34.	8	M	Sand burr	Larynx, 1 day	Laryngoscope	Good	Hagler

Comment

The ages ranged from thirteen months to seventy-four years, and from a sex standpoint it seems that males are just a trifle more careless in putting things where they do not belong.

It is strange that during this entire summer period I have not had occasion to remove a watermelon seed, and I do not consider that the inflated price of melons played a part. The fact that I have removed a large number of coins might leave the impression that there is more money in circulation, and we know well that this is true. You will note that the large bones which have been removed from the oesophagus were in older individuals. Upper plates account for this disaster. Why cannot the dentists give the upper plate a nerve supply?

Often patients consult the physician with the history that they have swallowed a fish bone and that it has lodged in the throat. In most instances the bone has traumatized the mucous membrane, but has not remained fixed. While this usually is the case, the hypopharynx should be thoroughly examined for sometimes the bone

may be found lodged in the tonsil, piriform fossa, or the base of the tongue. It is often difficult to convince these patients that the sensation they feel is the result of trauma and will subside in several days. Large bones are often swallowed and lodge in the cricopharyngeus region of the oesophagus. Seldom will these objects be visualized by fluoroscopy or cast a shadow on an X-ray film. Barium is sometimes given and an X-ray picture taken with the hope that enough will adhere to the object to cast a shadow. When it is not observed, the patient is told that a foreign body is not present. Fortunately, if a large bone or other non-opaque foreign body is present, dysphagia and pain will continue, and further medical aid will be sought. When a patient gives the history of having swallowed a foreign body such as a squirrel bone, beef bone, chicken bone, quail bone, or fish bone, with symptoms of dysphagia and pain, oesophagoscopy is indicated, and in most instances the object will be present. Barium followed by X-ray too often misleads the physician and obscures the operative field. I am mentioning this for I have been confronted with

this problem on enough occasions to make these statements.

With many young children and infants the outcome might have been fatal were it not for the 3½ mm. bronchoscope. In nearly one hundred percent of these patients a post-operative tracheotomy was formerly necessary. This meant further shock, longer hospitalization, nursing care, increased expense, high mortality. To operate through a scope of this size is very difficult, but the hours of practice necessary to make this possible pay tremendous dividends in the saving of lives.

Clinical Case Report No. 5

When first seen this child was semi-comatose in an oxygen tent; there was a history of aspiration of a f.b. several days previous to its entrance into the hospital; there was cyanosis and marked difficulty in breathing. The 3½ mm. bronchoscope with oxygen tube attached was inserted and a large bean visualized in the right main bronchus. Swelling and inflammatory reaction had completely closed off the lumen of this bronchus and partially occluded the left. The foreign body was removed without a great deal of difficulty, but labored breathing was not relieved nor color improved. The child only lived about ten hours after its entrance into the hospital. Dr. J. N. Compton examined it and thought that death was the result of vasomotor collapse. Regardless of the hopelessness of saving this life, I examined this child, and reviewed the case every night for at least a week after death in an effort to determine the exact cause. Cyanosis is a late and dangerous symptom, and this child, because of the type, location and sojourn of the foreign body, had labored hard for many hours in an effort to obtain enough air to sustain life. Finally it reached a stage of collapse where all our efforts were in vain. Large beans in very small children are probably the most dangerous of all types of foreign bodies. Often, as in this case report, they block the lumen of the main bronchi to the extent that early removal is imperative if the life of the child is to be saved.

Clinical Case Report No. 6

This child developed symptoms of choking followed by coughing and wheezing while eating mixed roasted nuts. The family was leaving Philadelphia to make Little Rock their temporary residence. On arrival a Little Rock physician was consulted. At this time the child had developed fever and the physician, obtaining a poor history of the origin of the illness, outlined

treatment for an acute respiratory infection. After several days of treatment without improvement an X-ray picture of the chest was taken, and Dr. Rhinehart reported that a non-opaque foreign body could account for his findings. The patient was referred to me for a diagnostic bronchoscopy, and I removed a small piece of roasted pecan from the right main bronchus. The child made a rapid recovery.

Clinical Case Report No. 10

The size of the foreign body, the age of the child, and the location, made bronchoscopy an emergency procedure. Dr. Rhinehart saw child and immediately called me. He stated that in his opinion early removal was imperative. Bronchoscopy is not often an emergency, and relatives of the patient should not be told that the foreign body will be removed soon after arrival at the hospital or that they may return home shortly thereafter. Too often the procedure is not a simple one, even when performed in an orderly manner, and if all decisions were left up to the bronchoscopist it would simplify matters a great deal.

Clinical Case Report No. 12

I can not forget this child. It was very ill and breathing with difficulty, the foreign body was lodged partly in the left main bronchus and partly in the trachea. The object was grasped with a small side-grasping forceps but pulled off when an attempt was made to pull it through the cords and fell back to the lower end of the trachea, completely blocking the lumen of both bronchi. The patient rapidly became lifeless, pulseless, and cyanotic. The bronchoscope was hurriedly inserted, artificial respiration given, and the child revived. Artificial respiration can be very dangerous when the main air way is occluded. No further attempt was made to remove the bean in toto. It was crushed and removed in pieces from the right main bronchus where it had been pushed with the bronchoscope. I want to say here that sulfa and penicillin have certainly been a marvelous addition to the list of our treatments in cases where lung pathology develops.

Clinical Case Report No. 21

Several years ago this poor old Polish woman became tired of living on this earth and drank a quantity of lye. After many months of dilating, a better than fair lumen in the oesophagus was established. Not long ago she was brought to the hospital complaining of inability to eat or swallow liquids for a period of two weeks.

Barium was given and no obstruction noted. She returned to her home. Because she continued to complain of pain and inability to eat or drink she was brought to Little Rock. Oesophagoscopy revealed a prune seed just above the stricture. Following its removal she returned home and made a good recovery.

Clinical Case Report No. 23

The mother of this child was shaving meat from a bone and feeding it to her child. The child choked, coughed, turned blue, and began to wheeze. The size of the piece of bone was so small that on deep inspiration it easily was sucked down into a small inferior lobe bronchus. After about thirty minutes of worrying, praying, cursing, and hoping, I thought I observed a small white object far ahead of the end of the scope. Finally I was certain that I saw it, but no matter how hard I tried I could not get it into full view straight ahead. Maneuvering the tube in every conceivable manner my prayers were answered at last and I was able to get a good view, insert a very small forceps, grasp and remove the object. Had I given up, the procedure would have been much more difficult at a later date because of trauma from the presence of the object and instrumentation. Had I failed to remove it serious lung damage would eventually have developed. This was the most trying and difficult case encountered during this nine month period.

Clinical Case Report No. 24

This was a small colored child, and I know that it would have been very difficult to insert with instruments this large, home-made, lead fishing sinker measuring about $1\frac{1}{2} \times \frac{1}{4}$ inch, into the trachea. The child had marked difficulty in breathing, and immediate removal was imperative. Fortunately, we encountered no trouble, and recovery was uneventful.

Clinical Case Report No. 29

This small child came into the house from playing, excited and coughing. Too young for questioning, the cause of the acute symptoms was uncertain. The next day it was brought to Dr. Burge at Lake Village. While the X-ray was negative for presence of an opaque foreign body it did show evidence of a bilateral emphysema. The child was referred to me for diagnostic bronchoscopy, and a foreign body was visualized in the right main bronchus and removed. It was a twig of some sort of shrub and was about $1\frac{1}{2}$ inches long. There was severe inflammatory reaction in the bronchus, but the patient made a rapid recovery.

Clinical Case Report No. 31

This man had been treated intravenously for a period of almost a month because he was unable to swallow liquids or solids. A diagnosis of carcinoma of the oesophagus had been made. The history is that of cardiospasm and oesophagoscopy was advised. A large amount of partially masticated meat was observed and removed from the lower end of the oesophagus. He made a rapid recovery only to return in several months with the same history. A very large piece of meat was again removed. Post-operative treatment this time was mostly a lecture on how and what not to eat.

Clinical Case Report No. 32

This was an elderly woman who for years had suffered with cardiospasm to some extent. This particular time she suffered rather severely and was taken to the X-ray laboratory for observation of the passage of a swallow of barium. Following this procedure she was referred to me at the hospital for oesophagoscopy. A large amount of meat fragments was removed and the oesophagoscope carried into the stomach. Several days later she developed pneumonia, and X-ray of her chest revealed barium in the bronchi. Age, shock, and inability to cough out the barium which was aspirated following the swallowing of the barium, resulted in pneumonia and death.

Clinical Case Report No. 33

Removal of this foreign body was a most difficult procedure for the following reasons: 1. the screw was large, 2. it was carried point down far into the right main bronchus, 3. as a result of inflammatory reaction the mucous membrane had completely covered the head of the screw. The selection of the forceps was important for it had to be strong enough to hold once applied. A forceps meeting this requirement was found to be too large to pass through a 4 mm. bronchoscope, and the use of a larger scope was almost certain to produce subglottic oedema and necessitate postoperative tracheotomy. The child was very small for his age, but I had to gamble on post-operative complications and used a 5 mm. scope. Small pledgets of cotton saturated with adrenalin were packed into the right main bronchus, and following their removal the visualization was improved. Forceps was applied firmly and the foreign body removed. He made an uneventful recovery.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

MINIMAL pulmonary tuberculosis is a relatively new disease to most physicians because its recognition has awaited the general employment of improved X-ray techniques. Our familiarity with the classical findings and symptoms of **advanced** tuberculosis may be the very factor which causes us to overlook ill-defined manifestations of **early** tuberculosis. Here the X-ray often provides the missing clue.

THE EARLY DIAGNOSIS OF MINIMAL PULMONARY TUBERCULOSIS

There are numerous vital reasons that indicate the importance of diagnosing tuberculosis in the minimal stage. The percentage of arrested or healed cases is highest, and the time required to obtain an arrest of the disease much the shortest in minimal cases. Collapse measures are infrequent and when used are less extensive, with complications, morbidity and mortality thereby reduced. The minimal cases, moreover, have far fewer recurrences. The percentage of those employed or able to work after treatment is much higher in this group.

The public benefits from the early diagnosis and cure of the disease. In persons with positive sputum, the spread of tuberculosis to their families and friends and the community is avoided. The shorter hospitalization period required for minimal cases means that public expenditures for them and their families are thereby definitely lowered.

To determine the factors that could aid the making of an early diagnosis, 200 cases with minimal lesions were studied. These patients were consecutive admissions to the Otisville Sanatorium, and all the cases were minimal on admission, according to the standards of the National Tuberculosis Association. Of the entire series, 155 patients were between the ages of fifteen and thirty-five. Forty-five patients were over thirty-five years old, with 20 of them older than forty. There has not been enough emphasis on the fact that tuberculosis often occurs in the elderly. Far too frequently the symptoms of older people are explained on the basis of other conditions, such as chronic bronchitis, asthma or

winter or cigarette cough. The 200 patients were quite evenly distributed according to sex and marital status. Several races and over forty different occupations were represented indicating that tuberculosis should be suspected at any age, in any occupation and with any type of social or economic background.

Sixty-seven patients (34 per cent) had had some contact with tuberculosis. A history of contact with this disease indicates that the patient obviously has had opportunities to become infected. The high tuberculosis morbidity and mortality rate for those with household contact has often been emphasized and the danger for children has been stressed. Every person who has had contact with tuberculosis patients should have a complete examination, including X-ray at once. This should be repeated every year, and preferably every six months. Lack of contact, however, does not rule out the presence of tuberculosis.

Of these 200 patients, only 37 (19 per cent) were without symptoms. One hundred and fifty-five patients had specific complaints, and eight gave a history of pleurisy. The statement has often been made that minimal tuberculosis is asymptomatic. This study significantly shows that the great majority of these patients do have symptoms. Certain symptoms are particularly frequent in minimal tuberculosis. Unfortunately, however, these are not characteristic or specific for this disease. Symptoms in themselves cannot serve as the sole criterion for the diagnosis of tuberculosis, but when present they should definitely suggest a chest X-ray examination.

Besides contact and routine examinations, the only factor that aided early diagnosis in this series was an acute onset or hemoptysis that

The Early Diagnosis of Minimal Pulmonary Tuberculosis, I. D. Bobrowitz, M. D., and Ralph E. Dwork, M. D. The New England Journal of Medicine, January 3, 1946.

prompted an immediate medical check-up. There is need for education of the public to consult physicians early regarding symptoms. The importance of the symptoms should be stressed, especially those that are not striking in character. In 21 patients a diagnosis of tuberculosis was not suspected or made at the first medical consultation.

Almost 75 per cent of the errors were in diagnosis of nontuberculous respiratory or upper respiratory conditions. To prevent these errors, it should be a routine practice not to make a diagnosis of pneumonia, bronchitis, asthma, pleurisy, chest cold, catarrhal fever or grippe without first considering tuberculosis. The symptoms and physical findings in these cases may be those encountered in tuberculosis. To determine definitely the presence of tuberculosis an X-ray and sputum examination and occasionally a tuberculin test are requisite for all these patients. This would not be an impractical or uneconomical procedure, for the yield of active cases of tuberculosis would be considerable.

The most valuable diagnostic physical finding in tuberculosis is the presence of rales, but only 29 per cent of these 200 minimal cases had rales. In minimal tuberculosis a normal physical examination is usual.

The demonstration of tubercle bacilli is, of course, absolute proof of tuberculosis, but the presence of a negative sputum does not mean that tuberculosis is absent. This is particularly true in minimal cases. In this series, 78 per cent were without positive sputum.

It is not necessary to wait for a positive sputum to make a diagnosis of minimal tuberculosis, since an early X-ray examination, properly fol-

lowed up, will indicate the disease. Needless to say, in a case with a purulent sputum persistently negative for tubercle bacilli, tuberculosis is undoubtedly not present. Other laboratory findings were of little help in diagnosis.

The physician in general practice can be extremely valuable in finding cases of tuberculosis. The patients that come to physicians' offices are a fertile field for mass surveys. It is estimated that 30 per cent of the general population visit a physician during the year. Fluoroscopy is of definite value and is much better than a physical examination for the discovery of minimal cases, but it cannot be relied on solely for diagnosis. To be certain of the presence or absence of tuberculosis, it would be necessary to X-ray patients considered negative on fluoroscopy.

The main problem in the control of tuberculosis is that of early diagnosis. As the next step, however, treatment should be provided without delay. It is the duty of the physician to educate the patient and his family in the infectiousness of the disease and of the value and necessity of immediate care. A patient may delay proper attention at home, postpone seeking admission to the sanatorium or continue to work after the diagnosis because necessary home adjustments have not been made. To meet these situations requires the cooperation of public or voluntary social service and welfare associations and of public health nursing and medical groups. If such problems are taken care of, patients will be prompted to accept medical treatment as soon as the diagnosis has been made. The possibility of progression of the disease can then be diminished and the morbidity and mortality of advanced tuberculosis thereby avoided.

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and Save Them

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EDITORIAL

U. S. HEALTH RESORTS EQUAL IN HEALING
POWER TO FOREIGN SPAS

American mineral spring resorts are unfairly
considered inferior in their healing power to
foreign spas, states Samuel Weiss, M.D., of New
York, in a special article appearing in the June
1 issue of "The Journal of the American Medical
Association."

The article, prepared under the direction of
the Committee on American Health Resorts of
the American Medical Association, says that
"millions of patients have spent small fortunes
in hunting health at European spas, when they
could have had the same scientific care and
considerate attention at home, and the addi-
tional advantage that our American waters are
not only equal to any in the world, but that
many of them stand in a class by themselves."

Citing a recent report on the subject, the
article points out that we have in the United
States 2,717 areas with 8,826 known mineral
springs, indicating that our spa reserves have
scarcely been touched.

Much of the popularity of mineral spring

resorts is attributable to the great number of
digestive ailments. Dr. Weiss says that most
digestive disorders originate in the nervous sys-
tem and tend to become chronic as the nervous
condition continues. Improvement in digestion
is usually concurrent with improvement in the
nervous condition.

Nervous indigestion is usually induced by pro-
longed emotional strain, anxiety, overwork, lack
of exercise and of rest, and above all by dietary
abuses, including in some cases overindulgence
in alcohol and tobacco.

The mineral waters act as an antacid, and as a
cathartic or purgative. They tend to increase the
flow of bile into the intestines, restore the min-
eral elements in the body and draw fluid from
the intestinal tract.

The author warns that "indiscriminate use of
the waters by the public may be exceedingly
injurious. The patient should be allowed to take
them only under competent medical supervision."

Spa treatment "is not indicated in every case,
and it cannot replace the medication and other
remedial procedures adapted to the needs of
each patient," according to Dr. Weiss. "A
month at a spa, no matter how beneficial, is no
safeguard against the return of ailments which
are due to body changes and for which uncor-
rected habits of life may be responsible."

The medicinal springs may be classified as
follows: (1) Alkaline carbonated waters chiefly
useful in patients with excessive secretion of
hydrochloric acid by the stomach cells; (2)
Alkaline muriated waters are used in mild cases
of chronic constipation; (3) Glauber's salt waters
activate the intestines; (4) Sodium chloride
waters increase hydrochloric acid production in
the stomach; (5) Bitter waters are strongly pur-
gative.

In general, the author suggests the following
disorders of the digestive system as possible in-
dications for spa treatment: (1) gastric neuroses
which impair the power of digestion in the stom-
ach, (2) subacute and chronic gastritis, (3) intes-
tinal atony, characterized by the lack of normal
tone or strength in the intestine, (4) chronic
colitis, an inflammation of the colon, (5) gall-
bladder diseases, (6) chronic hepatitis, an inflam-
mation of the liver—congestion, enlargement,
catarrhal jaundice—and (7) postoperative recur-
rence of digestive disturbances.

Dr. Weiss, staunchly supporting American
spas, says in conclusion: "American health re-
sorts, properly equipped and efficiently man-
aged, with competent medical supervision of spa
therapy, have an important place in the manage-

ment of digestive disorders. American spas should stand in the same high repute and enjoy the same wide popularity which Continental spas have attained."

HEARINGS ON THE MURRAY-WAGNER-DINGELL BILL

Hearings began April 2nd before the Senate Committee on Education and Labor on S. 1606, the Murray-Wagner-Dingell Bill, and have continued, with some interruptions, until late in June. The Journal of the American Medical Association is publishing condensations of these hearings for the benefit of American physicians. From the sidelines, one is impressed with the fact that the majority of witnesses heard by the committee favor enactment of this legislation. The audience is noticeably packed with Federal employees, particularly when a "chief" or "bureau head" appears. The lack of interest displayed in the proceedings by the eighteen members of the committee is noteworthy; seldom have more than four senators been present. Consistent in attendance, however, are Senators Murray and Donnell, the latter assuming the role of defender of the minority. The medical profession and the public owes much to Missouri's senator for his critical cross-examination of the proponents of the bill. Under his masterly examination, representatives of so-called national organizations have been shown to be testifying as individuals. One cabinet member admitted a decided lack of familiarity with the facts upon which his testimony was based. Senator Donnell alone has shown that many of the briefs which witnesses have presented were prepared in a governmental agency. Senator Donnell's contribution has been most valuable.

While all seem to agree that the bill will not likely receive a favorable report out of the committee, much less will it reach Congress at this session, none can assume that the present bill will not be followed by another and another until some of the provisions of the proposed legislation may actually reach Congress for a vote. Proponents of political medicine have not given up the fight.

It becomes the duty of the individual physician to be active if the ideals of medicine are to be maintained. The citizen of the United States needs to be fully informed of the import of legislation of this type. The individual citizen can best be informed of the fallacy of governmentally-controlled medical care by the individual physician.

THE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

Chas. R. Henry, M. D., Chairman

The practically universal reaction of the members of the profession and other interested persons in Arkansas is that our prepaid medical and hospital plan should be (a) comprehensive in character and benefits and (b) administered by an agency or agencies experienced in this field on a nationwide basis. Members of your committee are highly gratified by the uniformity of favorable response to the program which the society is sponsoring in this direction. A number of interested laymen throughout the State have made voluntary inquiry of the nature of the proposed plan, their interest having been quickened by the limited newspaper publicity which they had seen. Individual physicians, over and above the formal action of their respective county groups, have called and written members of the committee for additional information and at all times have manifested a most encouraging and helpful interest.

Two members of the committee have met in Chicago with the Council on Medical Service and Public Relations and with the Hospital Service Plan Commission of the American Hospital Association. A report of these meetings will follow in the next issue of the Journal of the Arkansas Medical Society.

THE PRIMARY ELECTION

With primary elections ahead, it becomes time for members of the Society to give careful consideration to the views and thoughts of those candidates who would represent the citizenship in state and national offices. Not only in the field of national legislation, but in state legislative circles as well, will measures of great import to physicians and the health of the public be introduced. It well behooves each member of the Society to inquire into the record of those who would act upon these legislative measures. We have seen an avalanche of legislation in Congress which would materially alter the present system of medical care in the United States. Some states have witnessed similar legislation within recent years. Any physician, genuinely interested in maintaining the present satisfactory plan of medical care of the American people, will feel it his obligation to insure that this will not receive bungling or theoretic restrictions and alterations in legislative chambers.

RANDOM THOUGHTS OF THE SECRETARY

May 22nd. Heading for Washington and visiting shortly with Hollis at the Memphis Airport wishing each other success in the ordeals ahead. Arriving Washington this evening to find it not in the least congested and some courtesy returned in the contacts of travelers.

May 23rd. Attending the heralded hearings on S. 1606 as an interested spectator with those in the know pointing out the "stooges" present and the astounding number of governmental employees sitting about to listen and take notes, the government continues a generous employer. Tonight to O'Donnells which has some of the greatness of the Bernstein Fish Grotto as a purveyor of sea foods.

May 24th. Today we go on the stand and for the occasion Senator Taft returns to the hearing for the first time since the disturbance of the opening day and Senator Murray apologizes and departs just as we go on the stand, all of which we could claim as tributes to our ability but there are contrary opinions on this, we are certain. With Missouri's friendly Donnell only to listen to us, our stay on the stand is short and pleasant. Afterwards visiting with Watson Miller who has espoused the cause of compulsory health insurance but is otherwise unchanged from days as rehabilitation chairman of the Legion. Visiting about the Capitol in the afternoon, successful in seeing John L. McClellan of the state delegation and, as always, happy over his attitude in legislative matters. Dinner with Joe Lawrence and Montana's Foss discussing divers subjects and to bed pondering the need for the average physician to understand the forces at work to regiment him and the practice of medicine.

May 25th. Rail strike is the major topic of conversation but passenger priorities are not back although the unfortunate air traveler in the seat ahead is tapped on the shoulder and invited back to the station while the front plane seats are piled with mail—mail so important to commerce and love, scribbled words on pages, yet powerful enough to unseat a harried passenger intent on returning home. With no difficulties other than lack of food, traveling homeward, glad indeed to leave the Capitol to those who like it.

May 28th. Meeting with the hospital and health survey commission committee today debating the master plan for location of additional hospital and health center facilities, a subject without apparent termination.

May 30th. Tonight the Auxiliary entertains in sumptuous fashion at the Eberle ranch, affording us the opportunity, shared by Amis, to "jes set" and share in the joys of the occasion. Homeward, another of these torrential rains comes and driving becomes somewhat of an exploration.

June 3rd. This records our appreciation of what the lady of the house has done to make 21 years of married life truly happy.

June 7th. Visited by A. C. Kolb who has a ring-side seat for all criminal trials in Arkansas these days.

June 11th. Tonight Dickey presents the excellent State Sanatorium motion picture production, "The Surgical Treatment of Pulmonary Tuberculosis" to the county society, authoritatively answering all questions save ours on the conversion of removed ribs into women.

June 16th. Father's Day brings us realization of the happiness that comes to the "old man" and a fuller understanding of what a good life this is.

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(Appointments for one year unless otherwise indicated)

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ADVISORY TO STATE INSTITUTIONS—R. B. Robins, Chairman, Camden; J. B. Jameson, Camden; L. J. Harrell, Prescott; Jos. F. Shuffield, Little Rock; M. C. Hawkins, Jr., Searcy.

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MILITARY AFFAIRS—Jos. H. Sanderlin, Chairman, Little Rock; Frank M. Burton, Hot Springs National Park; A. H. Hathcock, Fayetteville; G. D. Murphy, Jr., El Dorado; Foster Jarrell, Hot Springs National Park; W. A. Butts, Helena; W. G. Eberle, Fort Smith; L. J. Kosminsky, Texarkana.

OBITUARY

E. V. DILDY, age 61, died at his home in Nashville June 6th of a heart attack. Graduating from the University of Tennessee College of Medicine in 1906, he first located at Belton, moving to Nashville in 1911. A member of the Howard-Pike County Medical Society and of the Arkansas Medical Society, he was also a member of the Baptist church. He engaged in experimental farming for a number of years. Surviving relatives are his wife, two daughters, and a son, Dr. Edwin Dildy, of Nashville.

PERSONALS AND NEWS ITEMS

Frank Norwood has been elected surgeon of the Mena post of the American Legion.

Henry G. Hollenberg, Little Rock, has been appointed a member of the Board of the Donaghey Foundation. Dr. Hollenberg has also been appointed civilian surgical consultant to the Army and Navy General Hospital, Hot Springs National Park.

B. V. Raley, Little Rock, is now taking a residency in internal medicine at De Paul Hospital, Saint Louis.

E. M. Miers, Mena, has been elected a fellow of the International College of Surgeons.

S. R. Boykin has moved from Crossett to Monahans, Texas.

Lt. Col. Stanley M. Gates has been released from military service and has been assigned as Medical Director, Veterans' Administration, Fort Smith.

D. V. Smith has moved from Crossett to Morganfield, Kentucky.

Virgil Payne, Pine Bluff, recently took special work in Chicago.

M. S. Craig, Jr., who is serving a fellowship in proctology at the Mayo Clinic, recently visited his family at Batesville.

D. A. Rhinehart, Little Rock, conducted a question and answer period at the American Registry of X-ray Technicians' meeting in Saint Louis June 11th.

F. S. Dozier has moved from Wilson to Marianna.

M. L. Skaller has moved from Blytheville to Corpus Christi, Texas.

Ben D. Means has been released from military service and has returned to practice at Little Rock.

Paul W. Hoover has been released from mili-

tary service and has returned to practice at Little Rock.

Sloan M. Sanford has returned to practice at Little Rock following release from military service.

Julius K. Sheppard has been released from military service and has located at El Dorado.

A. S. Buchanan, Prescott, has been elected a trustee of College of the Ozarks, Clarksville.

Euclid M. Smith and Earl J. Bieri, Hot Springs National Park, attended the recent session of the American College of Physicians in Philadelphia.

Sam Phillips is now located at 1022 Donaghey Building, Little Rock.

J. B. Hesterly has been elected surgeon of the Prescott post, American Legion.

G. C. DeBolt has been elected surgeon of the Rogers post, American Legion.

Dr. and Mrs. W. F. Adams, Fort Smith, spent a recent vacation on Lake Hamilton.

Dr. and Mrs. A. S. J. Clarke, Fort Smith, visited Detroit and Ann Arbor on a recent vacation.

The following attended the Philadelphia session of the American College of Physicians: A. A. Blair, Chas. T. Chamberlain, Fort Smith; Geo. W. Parson, Texarkana, and O. C. Melson, Little Rock.

J. J. Kennedy has moved from Rogers to Carnegie, Oklahoma.

H. E. Murry, Texarkana, recently took special work at Cook County Hospital, Chicago.

A. C. Parker, Jr., Clarkedale, has been released from military service.

D. A. Rhinehart, Little Rock, has been re-elected president of the American Registry of X-ray Technicians.



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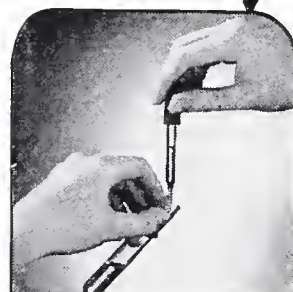
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PROCEEDINGS OF SOCIETIES

The Pulaski County Medical Society was addressed June 3rd by Charles H. Winkler, Jr., and P. J. Almaden on "Streptomycin: Its Development and Bacteriological Aspects."

E. J. Easley, Secretary.

The 1946 Annual Conference of the Arkansas State Board of Health held in Little Rock May 23rd and 24th was addressed by J. D. Riley, State Sanatorium, "The Psychological Moment"; W. P. Scarlett, Little Rock, "Typhus Control in Greater Little Rock," and several out-of-state speakers.

The Washington County Medical Society was addressed June 4th by J. W. Dorman, Springdale, "Sodium Pentothal Anesthesia."

Ruth Ellis Lesh, Secretary.

The Sebastian County Medical Society was

addressed June 11th by A. B. Dickey, State Sanatorium, "The Surgical Treatment of Pulmonary Tuberculosis."

D. W. Goldstein, Secretary.

The Southeast Arkansas Medical Society met in dinner session at Dermott June 17th for the following program: "Obstruction of the Colon," G. V. Brindley, and "General Considerations and the Problem of Low Backache," H. B. Macey, both speakers from the Scott and White Clinic, Temple, Texas.

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WOMEN'S AUXILIARY NEWS

The Woman's Auxiliary to the Bowie-Miller County Medical Society met May 24th at the home of Mrs. William Hibbitts. Co-hostesses were Mrs. S. A. Collom, Sr., Mrs. P. H. Phillips of Ashdown, and Mrs. Brooks Tate.

The president, Mrs. Hibbitts, presided over the meeting and reports were read by various committee chairmen. The yearly report also was read, and an interesting account was given concerning the social and business proceedings of the recent Texas State Meeting at Galveston. The local auxiliary was awarded blue ribbons for their Hygeia and Public Relation work.

Several members had a perfect attendance record this year, but, in the drawing for first place, Mrs. Ralph Cross won the prize.

Mrs. Hibbitts introduced the incoming president, Mrs. N. B. Daniels, and the new officers. Mrs. Daniels made a brief address and announced the committees for next year.

The Women's Auxiliary to the Union County Medical Society met at the Y.W.C.A., May 9, 1946. Several members were present. Old and new business was discussed. Mrs. Garland Murphy, Jr., president, gave an interesting report on the recent state meeting held in Little Rock, which was attended by four Union County members.

The president gave the following list of additional officers nominated, which were approved:

Legislation—Mrs. L. G. Fincher
 Hygeia—Mrs. Berry Moore
 Doctor's Day—Mrs. J. B. Wharton, Sr.
 Essay Contest—Mrs. M. V. Russell
 Health Education and Physical Examinations—
 Mrs. David Levine
 Publicity—Mrs. Jack M. Sheppard
 Bulletin—Mrs. A. D. Cathey
 Cancer Control—Mrs. D. E. White
 Courtesy—Mrs. G. D. Murphy, Sr.
 Contributions—Mrs. Warren S. Riley
 Year Book—Mrs. Thibault, Chairman; Mrs. H. J. Mayfield, Mrs. J. H. Pinson, Jr.
 Constitution and By-Laws—Mrs. H. F. Mayfield

The meeting was adjourned; this being the last meeting until September.

Mrs. Jack M. Sheppard,
 Corresponding Secretary.

Officers of the Auxiliary of the Sebastian

County Medical Society were installed, and standing committees named May 13th.

Mrs. D. W. Goldstein, retiring president who automatically becomes vice president, conducted the meeting and installed the new officers who are Mrs. Fred Krock, president; Mrs. Kenneth Thompson, secretary, succeeding Mrs. S. P. Stubbs; Mrs. H. H. Smith, treasurer, succeeding Mrs. Walter Eberle.

Mrs. Krock announced the following standing committees: Public Relations, Mrs. Everett Moulton, chairman, Mrs. Walter Eberle, Mrs. J. S. Southard, Hygeia; Mrs. I. F. Jones, Mrs. Minnie Fuller, Magazine; Mrs. S. J. Wolferman, Mrs. J. W. Redman, Mrs. Carl Wilson, Mrs. A. A. Blair; health, Mrs. W. F. Adams, Mrs. Eugene Stevenson, Mrs. H. B. Thompson, Mrs. G. G. Woods, Huntington; courtesy, Mrs. B. L. Ware, Mrs. Ralph Crigler, Mrs. A. F. Hoge; legislative, Mrs. M. E. Foster, Mrs. Mabel Wood, Scott; cancer control, Mrs. W. R. Brooksher, Jr., Mrs. W. L. Shippey, Mrs. Stanley Gates, Mrs. C. W. Hall, Greenwood, Mrs. M. Woods, Huntington; membership, Mrs. Charles T. Chamberlain; publicity, Mrs. W. F. Rose.

Mrs. Goldstein expressed her appreciation for the cooperation received during the year of her presidency. She and Mrs. S. J. Wolferman gave reports on the state convention of the Auxiliary of the Arkansas Medical Association held in Little Rock April 15, 16 and 17.

Mrs. Walter Eberle and Mrs. J. S. Southard were hostesses for the luncheon which preceded the installation ceremony. Mrs. Carl Wilson and Mrs. A. B. Martin were enrolled as new members.

Members present were Mrs. Krock, Mrs. Goldstein, Mrs. Eberle, Mrs. Smith, Mrs. Southard, Mrs. Kenneth Thompson, Mrs. B. L. Ware, Mrs. Wolferman, Mrs. Stanley Gates, Mrs. Thompson, Mrs. Everett Moulton, Mrs. C. W. Hall, Greenwood, and Mrs. W. F. Rose.

Meetings are suspended for the summer, Mrs. Rose said.

Mrs. W. F. Rose, Publicity Chrmn.,
 Auxiliary of the Sebastian County
 Medical Society.

Mr. Hamilton Bailey of London, England, will visit Detroit in October to deliver an address at the Eleventh Assembly of the United States Chapter, International College of Surgeons. His subject will be "Impending Death Under Anesthesia."

Other eminent speakers and clinicians who will appear at the I.C. of S. clinics and the As-

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Copy of program and detailed information, including housing arrangements, may be obtained by writing Dr. L. J. Gariepy, Secretary, 16401 Grand River Avenue, Detroit 27, Mich.

BOOK REVIEW

1945 Yearbook of General Surgery. Chicago: The Year Book Publishers, 1946.

From Anesthesia (page 11) to Varicose Veins (page 706) the "1945 Yearbook of General Surgery" presents a succinct but complete resume of the surgical literature of 1945. To the war weary veteran its dearth of tiresome military medical discussions is a pleasant relief. Although its pages are not as chock full of "pearls of wisdom" as the pre-war issues, the reader gains the impression that the Yearbook, as usual, represents a monument to the year's surgical progress. The pithy insertions of the editor are items worth the price of the book, and his observations add a stability of thought to the reading of the Yearbook that one does not get from perusing the surgical journals.

Real news items in the field of surgery from 1945 included the use of thio-uracil in cases of hyperthyroidism, the use of testosterone propionate in mammary carcinomas, the many applications of penicillin and related drugs, new technics in cardiac surgery, additional reports on successful surgery of the pancreas, advances in the surgical treatment of pulmonary tuberculosis, new anatomical facts concerning diaphragmatic hernias and new instruments for special technics.

A most interesting and instructive section of the Yearbook is its review of articles analyzing and comparing the merits of several antiseptics, bacteriostatic agents and germicidal drugs.

Thrombophlebitis and phlebothrombosis continued to stimulate interest and research.

A variety of problems, technics, and drugs used in anesthesia were described in 1945. The section on anesthesia re-establishes the fact that anesthesia is no longer a "step child" of surgery but has become the "lawfully wedded wife"; and as wives frequently do, it often dominates the surgical picture.

Several hundred other surgical subjects are discussed in the Yearbook and many valuable illustrations have been reproduced.

Textbook of Gynecology: By Arthur Hale Curtis, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of Gynecological Service, Passavant Memorial Hospital, Chicago. Fifth Edition. 755 pages with 455 illustrations. Chiefly by Tom Jones, including 36 in color. Philadelphia and London: W. B. Saun-

ders Company, 1946. Price \$8.00.

This book has been a popular text with students and clinicians since the first edition was published in 1930. A particular effort has been made by the author in this fifth edition to bring the subject up to date. Many of the chapters have been revised and additions to the chapters on "Tumors of the Ovary," and "Endocrinology" are timely. It may be said without hesitancy that the completeness of the chapter on "Ovarian Tumors" is most striking when compared to similar texts. The many original photographs and micro photographs that are used as illustrations in this chapter are worthy of consideration in evaluating the importance of this particular presentation.

In the section on the endocrines the author has again attempted to correlate the most essential points in a practical manner in order to make the subject applicable to every-day gynecological practice. He has purposely omitted the controversial issues and presented only the facts that have been established firmly in their clinical application. It is of interest to note the many additions to this section in spite of the author's cautiousness in approaching that realm occupied by many of the more enthusiastic writers.

It was necessary of course for the chapter on "Gonorrheal Infections" to be rewritten because of the advent of penicillin therapy. The most salient points concerning the use of penicillin are adequately discussed.

In the chapter on "Other Tumors of the Uterus" the author added two new topics: "Sarcomatoid Growth of the Endometrial Stroma and Hypertrophy of the Uterus."

This book covers the subject of gynecology very comprehensively and is particularly adaptable to didactic use for students in medical school. It is excellently printed and sturdily bound in cloth. The bibliography and index is unusually complete.

The Modern Attack on Tuberculosis. By Henry D. Chadwick, M. D., and Alton S. Pope, M. D. pp. 134. Price \$1.00. New York The Commonwealth Fund, 1946.

Dr. Henry D. Chadwick is an outstanding authority on tuberculosis. He is especially well qualified to write on the control of tuberculosis.

The revised edition of "The Modern Attack on Tuberculosis" includes much new material about recent developments in administrative practice and the techniques of control.

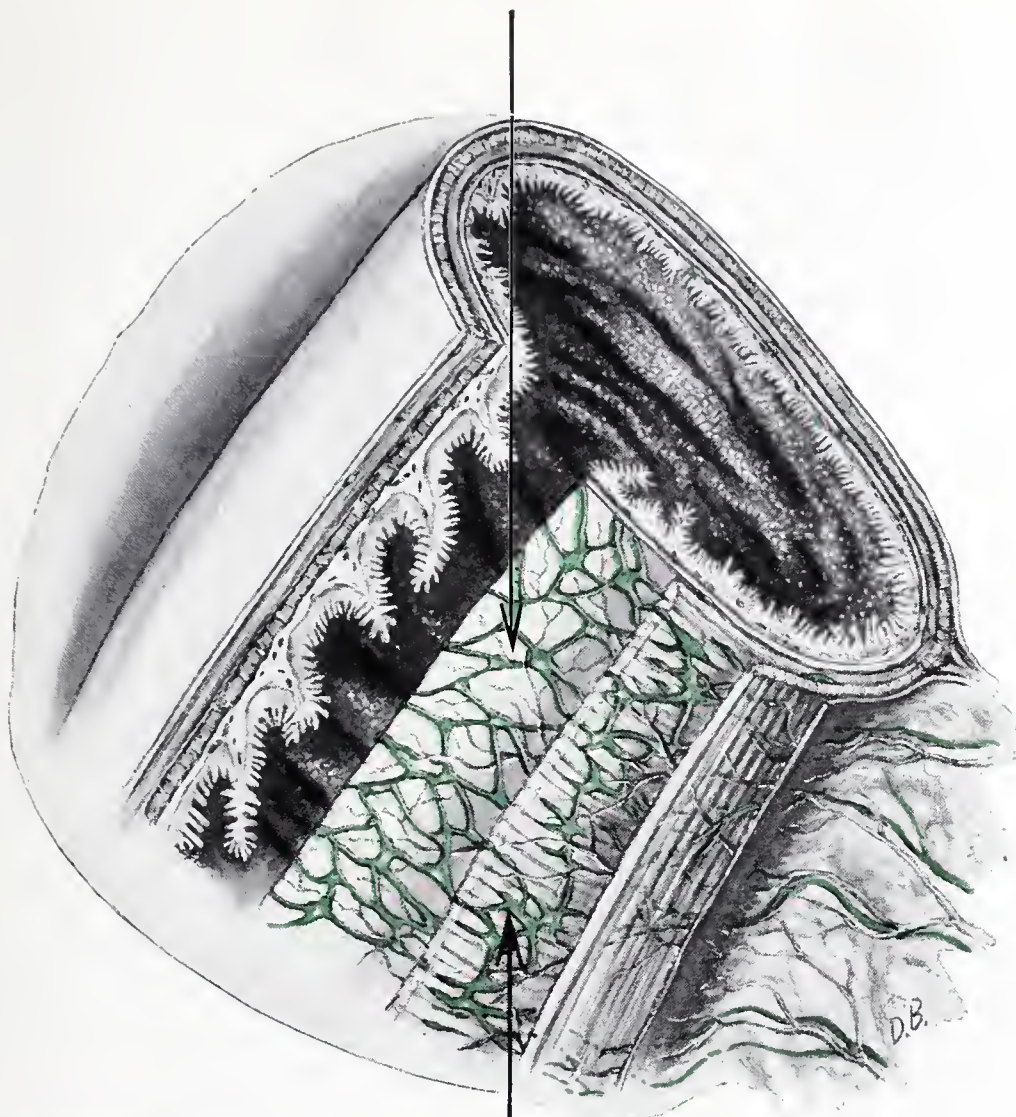
This book will be useful to health officers, public health nurses, and others concerned with community health, as well as physicians.

Bacillary Dysentery, Colitis and Enteritis. By Joseph Felsen, B. A., M. D., Director of Medical Research, Bronx Hospital, New York; Director of International and Pan-American Dysentery Registry. 618 pp. with 145 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$6.00.

This book covers the literature on the subject up to our present knowledge. Giving the historical aspects, piedemiology, clinical aspects, bacteriology and therapy, with excellent cuts of X-ray and pathological specimens in acute and chronic B. Dysentery.

The appendix has a complete section on technical methods used in the diagnosis of dysentery and an educational program for the preventions and control of bacillary dysentery.

It is an inspiring monograph on a subject so prevalent, as to be seen by all. Dr. Felsen has given time and thought to research and controversial problems.



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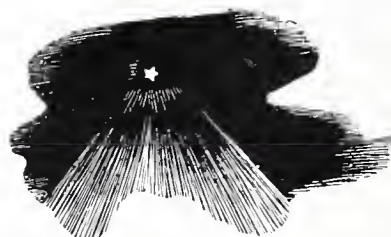
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THE STATUS OF THE GENERAL PRACTITIONER, PRESENT AND FUTURE*

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In the addresses before medical meetings and in the papers in the medical literature today one sees more and more concern over the shortage of specialists "certified" by the various specialty boards. Many of these utterances imply that this shortage indicates an inadequacy of medical care now available. Our purpose in this presentation is to point out a trend toward the concept that only specialists are qualified to treat patients, to question the validity of this concept and to present a plan to halt or reverse this trend. It is not our purpose to question the importance of highly trained specialists in the treatment of patients: simply to question the necessity of their treating all patients.

For convenience of discussion the system of the practice of medicine in which the patient has no choice of physician, in which supervision of the physician in charge of a patient is exercised authoritatively and in which remuneration for services is not accomplished between the physician and patient directly, will be referred to as regimented medicine. This system includes the medical service of the military services, the Veterans' Administration, medical teaching centers, certain industrial medical plans and other similar systems. The opposed system wherein a patient selects and remunerates his physician and where the physician is free from authoritative supervision will be termed the private practice of medicine. The relative merits of these two systems will not be discussed.

The Trend

Those who served in the army hospital system are familiar with the operation of the Consult-

ants Division of the Surgeon General's Office. Medical officers were classified as to specialty training and as to relative competence within the specialty. On the basis of a number so derived, assignments of individual officers were made. For example, the number 3153 indicated that the officer was a medical officer qualified as an orthopedic surgeon. The letters A, B, C and D were used to denote relative competence. D rating indicated minimal training and experience in the specialty and was used, for example, to denote an officer who had had only an internship prior to military service and had been given a brief army course in his specialty. Thus, an officer rated as 3153 D would likely serve on an orthopedic staff under supervision of a higher rated officer. A C rating indicated training incomplete but with sufficient background and experience to function as a specialist without supervision if necessary. Men taken into service directly from residence, men with experience in a specialty but without formal training, were usually given this rating. Thus 3153 C would lead to assignment as assistant to an orthopedist in a large hospital unit or chief of orthopedics in a smaller unit. In actual practice many C rated men served as chiefs in the larger hospitals, owing to the scarcity of men with higher ratings. B rating indicated certification by a specialty board or equivalent training and experience. Thus 3153 B men were the ones the Army desired to use as orthopedic chiefs in their general and larger station and evacuation hospitals. The A rating was reserved for men of professional rank and served primarily as consultants and as chiefs in the specialty centers. The introduction of this system resulted in improvement in medical care and in medical personnel assignment. It brought about the conversion of indifferent, politics ridden hospitals into miniature teaching centers and it resulted in young medical officers setting their goal at certification in order to obtain the coveted higher rating. Where did the general practitioner fit into such a system? In the hospital system, if he wished to treat patients, he had to serve as a "junior specialist" in a capacity similar to that of the D rated specialist. Promotion in military rank depended on the

*Reprinted by permission from The Journal of the American Medical Association, June 8, 1946.

¹ Hawley, P. R.: New Opportunities for Physicians in the Veterans' Administration, J. A. M. A. 130: 403 (Feb. 16), 1946.

² DeBakey, M. E.: Our National Medical Resources, J. A. M. A. 129: 417 (Oct. 6), 1945.

³ Hopkins, B. A.: The General Practitioner and Rural Medical Care, South. M. J. 39: 106 (Feb.), 1946.

position occupied, and position in the professional field depended on specialty rating; not at all uncommon was the sight of a 30-year-old chief with 40-year-old assistants. Is it surprising that so many chose administrative, sanitary and field duties where promotion was not dependent on specialty training? Certainly physicians subjected to this system will emerge from the service feeling that there is a very high premium on specialty training. What of the patient—the 11,000,000 soldiers? His unit surgeon, the Army's nearest approach to a family physician, was rarely allowed to treat him in quarters, had minimal equipment in his dispensary and relinquished contact, in most instances, when the patient was hospitalized. For many complaints of relatively simple character the soldier was referred to the hospital specialty outpatient clinics and, when hospitalized, his case was controlled completely by men who were considered specialists. If he had complaints in two different body systems, almost invariably he saw two doctors. Is it unreasonable to expect that he may emerge with the impression that only specialists are capable of treating him?

With the war over and soldiers converted to veterans, this may pass. Will it? The veterans' hospitals operate in a very similar manner, and the newly created consultant's system of the Veterans' Administration is almost identical with that of the Army. In *The Journal* of February 16 General Hawley¹ indicates the concern of the Veterans' Administration over securing specialists by pointing out that the law provides a 25 per cent increase in base pay and original appointment at a higher grade for men certified by specialty boards. Further, he states that "physicians in the service of the [Veterans' Administration] will be encouraged to train for certification in the specialty of their choice." Will not the eventual culmination of this policy be certification of all physicians serving the Veterans' Administration? Here, again, all patients admitted to the hospital will be treated by specialists. General Hawley¹ states that 19,000,000 men will fall under the care of the Veterans' Administration. The families of these are likely to think as they do. If veterans have an average of three dependents, it is conceivable that 76,000,000 members of the American population may be indoctrinated with the concept that only specialists are capable of treating patients.

The Veterans' Administration program of making agreements with the state medical societies for care of service connected disabilities of vet-

erans by physicians and hospitals of the veteran's home community does allow some participation in their care by general practitioners. For example, the agreement with the Kansas society provides that a veteran claiming service connected disability will be sent to a physician of his home community for complete physical examination. This examiner then recommends that the veteran be further examined by a specialist in whose field the alleged disability falls, if indicated. The disability rating board then acts on the combined reports. That this may be an act of expediency resulting from the overcrowding of the Veterans' Administration hospitals rather than a Veterans' Administration policy to permit participation by the general practitioner is indicated by the fact that this system is to be used only when the Veterans' Administration hospitals are filled. In *The Journal*, October 6, 1945, Dr. DeBakey² recommended that treatment under this system be given by staff physicians selected on the basis of certification by the various specialty boards. Although Dr. DeBakey's opinion is strictly his own, it is probably in accord with that of most other members of the Consultant's Division of the Army, and the liaison between the Army and the Veterans' Administration consultants is very close. From this one may reach the conclusion that even in the local care the trend of the Veterans' Administration will be toward the concept of total specialization.

The Pepper bill now before Congress would perpetuate the maternal and infant care of the Emergency Maternity and Infant Care Program for all families. A committee from the advisory board to the Children's Bureau recommended that only certified specialists be allowed to participate in this program. The advisory board did not accept the committee's report, but it is indicative of the trend of thinking now in progress.

In the medical teaching centers where our students, interns and residents are trained and where so many of our low income group receive their medical care, a similar trend is apparent. The organizational structure of most of them is familiar to all who have passed through them. Each patient is seen in a specialty clinic or admitted to a specialty service. All cases, including the most trivial and routine cases handled daily by the general practitioner in private practice, are treated by specialists or under the supervision of specialists. The teacher of medicine who uses his contempt for the general practitioner as a substitute for humor is present, unfortunately, in many such centers. Since the

teachers of medicine are specialists, it is only natural that they should glorify the role of the specialist even where such feelings are not expressed. Dr. DeBakey,² in his previously quoted article, says with genuine concern that "there are in the United States today some 160,000 practicing physicians, of whom only slightly more than 20,000 are certified by the various specialty boards as qualified in their chosen fields." Is a ratio of one specialist to eight general practitioners low? Undoubtedly it is if all patients must be treated by specialists, as the present policies of the armed services, the Veterans' Administration and the medical teaching centers imply they should be.

What of private practice? More and more common is the patient who feels that his differential diagnostic acumen is such that he can select the proper specialist without benefit of advice from his family doctor, and it seems reasonable to anticipate that this group will become more numerous as the previously mentioned indoctrination progresses. More and more prominence is being assumed in private practice by the group clinics, and the trend in these appears to be steadily toward specialization. If one will glance through the classified advertisements in *The Journal*, "wanted, specialist in . . . to join group, must be certified" will be found to be the approximate wording of a great many. Does not the absence of general practitioners from many of these groups imply to the patient that complete care does not include the general practitioner?

The one purpose of the foregoing material is to show that a trend is under way toward a concept that only specialists are competent to treat patients. If this doctrine is accepted, the concern exhibited by Dr. DeBakey² and felt by many others over a one to eight ratio of specialists to general practitioners, the preoccupation of the Veterans' Administration and other regimented systems over the shortage of qualified specialists and the feverish activity of the various specialty organizations to provide additional residencies are understandable. If the profession accepts it, steps must be taken to allow the physicians of private practice to acquire the required training just as General Hawley¹ has promised the men of the Veterans' Administration. Can the medical schools conscientiously send out a man with only an M.D. degree if they feel that he is not qualified to treat patients until he becomes certified by a specialty board?

Validity of the Concept

Suppose the profession does not accept this

concept. Is the position that many patients may be treated adequately by general practitioners tenable? Dr. B. A. Hopkins³ in the chairman's address before the Section on General Practice of the Southern Medical Association quotes Dr. Pressley as saying "It is the definite conviction of some of the outstanding leaders of the medical world that from 80 to 85 per cent of those seeking medical care could be skillfully and successfully cared for by a well trained general practitioner." After reviewing over 2,000 consecutive individual cases, Dr. Hopkins found this estimate conservative. A similar impression is echoed by medical leaders at every meeting where discussion of this topic arises.

The basic policy of the private practice of medicine, even today, rests on the general practitioner who takes care of the routine ills of all members of the family and refers them to appropriate specialists when occasion demands. Is this an outmoded system? Has it failed? Is it necessary to have a pediatrician prescribe for the children and an internist for the parents when the same upper respiratory infection strikes several members of a family? Must the orthopedist be called for the contusion, sprained ankle and undisplaced fracture? These examples are not absurd; this sort of thing occurs daily in the previously described regimented systems. This may be more controversial, but does adequate care require the presence of a certified obstetrician at a normal delivery? A man who has spent the time and money required to become certified can reasonably expect a larger fee for this work; but is it necessary for patients to pay such fees for routine care?

Two basic criticisms have been leveled at the system of general practice. First, failure of the general practitioner, on occasion, to differentiate between the trivial and the serious. For example, the sprained wrist which the general practitioner may bandage and give reassurance about may be found to be a fractured carpal navicular when seen by the orthopedist. Failure to immobilize may result in a preventable permanent disability. The fractured lateral malleolus requiring simple immobilization may also present a tibiofibular diastasis requiring more involved treatment. Specialists in other fields can cite equally telling examples within their experience. In other words, the general practitioner sometimes fails in his very important function of referring patients to specialists at the proper time. The answer to this criticism is for the general practitioner to become more proficient in differential diagnosis. This will be amplified later.

Secondly, the failure of the general practi-

tioner to observe the limitations of his training is a very serious criticism. That some general practitioners fail to refer patients requiring specialized care may be attributed to their fear of loss of prestige and income; of the two, prestige is probably far more important. The indoctrination of the public and the young physician with the idea that the specialist is a vastly superior being is, to a large extent, responsible for the fear of loss of prestige and leads many general practitioners to try to create the illusion, both to themselves and to the public, that they are, more or less, specialists. The answer to this lies in the improvement of the status of the general practitioner and his indoctrination with regard to the dignity of his position as a family physician.

The abuses leading to these criticisms, while serious, are susceptible of being corrected. Too, the criticism is directed at certain individual general practitioners and not at the system of general practice.

What is the case for the general practitioner? The economic waste involved in specialty care for routine conditions has already been mentioned, but, more positively, what has the general practitioner accomplished? During the past fifty years the life expectancy has been increased from 33 to 60 years, maternal and infant mortality has been lowered tremendously, many infectious diseases have been all but eliminated, and numerous other great strides have been made. Using Dr. DeBaake's statistics,² seven-eighths of the physicians today are general practitioners. Of the one-eighth who are specialists, many are quite young and many are engaged in full or part-time research. One may safely conclude that well over 90 per cent of medical care to patients has been given by general practitioners during this forty-year period. Has the general practitioner not been successful in bringing the advances of medical science to the patient? Surely this implies that he is capable of treating patients.

How does the population fare in the system when he is eliminated? The lowest income group of a large city receive their medical care, for the most part, from teaching hospitals, where all patients are treated by or under the supervision of specialists. The finest of equipment and professional skill are available. In towns of 10,000 or less, patients are treated by general practitioners with quite limited facilities and are referred to private specialists or medical centers, depending on financial status, if their needs warrant. One needs only to observe the difference in appearance of these two groups to see

which has the higher health standards. True the social conditions in small towns are more conducive to health than are those in a city's slums, but may not this be a reflection, to some extent, of the success of the two systems of the practice of medicine? Can the businesslike chief resident, or even the suave professor, hope to compete with the well known and beloved family physician in persuading a family to modernize its toilets, cover its garbage can or inoculate its children? Which, likely, would be more successful in persuading the head of the house that it really is necessary for him to give up tobacco now that he has Buerger's disease, or that his wife must have extensive and dangerous surgery in the hope of eliminating carcinoma, or that his young daughter must have rest, sunshine and milk until her chest films clear? The specialist can expect far better results if he can count on the influence and moral support of the family physician in seeing that his specialized regimen is followed as he recommended.

There is reason to believe that, in many instances, a patient may receive better care by routinely consulting his general practitioner before seeking the attention of a specialist. No past or personal history, however skillfully taken, can approach in comprehensiveness the knowledge possessed by the doctor who delivered the patient, treated him for measles and whooping cough, gave him his inoculations, stood by while the otolaryngologist removed his tonsils or the orthopedist reduced his football fracture, advised him prior to marriage, nursed him through his period of mental depression and watched the gradual rising of his blood pressure. By having cared for his parents, siblings, wife and children the family doctor may know more of his family problems than the patient himself. With such background of information is it not possible that his opinion on some obscure complaint may be far more valuable than that of the most highly trained specialist? The importance of seeing the patient as an integrated personality in his natural environment has been strongly emphasized by the writers on psychosomatic medicine. Can any specialist approach the family physician in his opportunity to do this?

What specialist can overcome the natural bias toward those things with which he deals? If the patient complains of low back pain, will not the orthopedist first check the posture, the urologist the prostate, the gynecologist the position of the uterus, the gastroenterologist the bowel habits? How many specialists must the patient consult before the source of his complaint is found? Many fruitless diagnostic pro-

cedures could be avoided and money, suffering and time saved if patients consulted the general practitioner and the appropriate specialist recommended by him.

What of the value of personalized attention? The sick person is more than bed number 14, diagnosis duodenal ulcer. He is Mr. John Doe, who has, among other things, indigestion. The services of the radiologist and clinical pathologist are most welcome in establishing the diagnosis, of the internist in outlining the management and of the surgeon in handling his complications duly appreciated. The adherence to the regimen outlined and the eventual outcome, however, are far more dependent on the family physician who cajoles, threatens or placates as the occasion demands than on any or all of these. The returned service man has no specific complaint in regard to his medical care in the service; on questioning, he will admit, reluctantly, that he received the necessary care, but, somehow he was not satisfied. Frequently it is worded, "They didn't pay any attention to me." He knows this is not literally true, but the personal touch was missing and on this occasionally rests the difference between recovery and invalidism. It appears inevitable that a system that does not include the general practitioner must give up much of the traditional doctor-patient relationship. Can medicine afford to discard such a useful weapon from its armamentarium?

Proposals to Check the Trend

If the trend not just to increased specialization but to a philosophy that only certified specialists are competent to treat patients is accepted as existing and if it is believed that this concept is not valid, the medical profession is faced with an obligation to halt this trend. What can be done to retain and improve the present status of the general practitioner?

Since the trend is so much more pronounced in regimented medicine, it is felt that recognition of the general practitioner by the regimented systems would do much to improve his status in the minds of patients and young physicians. To implement this it is proposed that general practitioners be given staff appointments in teaching centers. A competent and successful general practitioner assigned to each specialty service would act as an adviser to the chief of service in regard to those parts of his specialty which should be emphasized in the training of general practitioners. It is believed that this would eliminate the situation where, for example, a future general practitioner completes the orthopedic service of his internship knowing

well how to serve as assistant at a spinal fusion, which is of little value to him, but knowing little about the differentiation between sprain and internal derangement of the knee joint, the differentiation of which may save some future patient of his a permanent disability. This system might go far toward eliminating the first of the two serious criticisms of the general practitioner previously discussed. Secondly, it would enhance the prestige of the general practitioner in the mind of the young physician.

A second proposal to implement recognition by the regimented services is to establish general practice services in teaching, military and veterans' hospitals. These services could handle the routine, not necessarily minor, conditions usually handled in that community by general practitioners in a manner similar to that used in private practice. This would provide an excellent spot for training future general practitioners, would relieve the specialty services of the routine so that their energy might be devoted to cases requiring such highly trained skill and would enhance the prestige of the general practitioner in the mind of both patient and young physician. It would offer an excellent opportunity to inculcate in the young general practitioner the necessity of calling for specialty consultation when indicated and might do much to alleviate the abuses of both the major criticisms of general practitioners previously discussed. In the military service, particularly in garrison, an opportunity for the unit surgeon to treat his own men in the hospital for routine conditions could be provided on such a service and might go far to make the assignment as unit surgeon a popular one rather than the undesirable assignment it so frequently is at present. Since the apparent goal of the Veterans' Administration is to make its hospitals as much like teaching centers as possible, the proposals for teaching centers would likewise apply to them. The navy in its ship assignments offers some opportunity for general practitioners, but it is subject to the same proposals as the army for its shore installations.

The agreements being made between the Veterans' Administration and various state medical societies for care of service connected disabilities by local physicians in local hospitals is the only ray of hope for an improved status of the general practitioners now evident on the horizon of regimented medicine. In that it provides for general physical examinations and general medical care by general practitioners with reference to specialists when indicated, it may represent the beginning of a trend toward recog-

nition of the value of the services of general practitioners by regimented medicine. It has been implied previously that this may be an act of expediency rather than policy, but, whatever the reason for it, it gives the general practitioner an opportunity to demonstrate the value of his service to regimented medicine. It is urged that the general practitioners of the nation accept this opportunity as a real challenge. The big flaw in the agreement, from the standpoint of elevating the status of the general practitioner, is that the veteran can receive care in this manner only if the Veterans' Administration hospitals are filled. It is proposed that, even when Veterans' Administration hospital space is available, the veterans be given the choice of accepting his care in this manner or of going to a Veterans' Administration hospital. This would make available to the Veterans' Administration that previously discussed fund of knowledge possessed by the family physician and would provide the personalized medicine the veteran misses so sorely in military and Veterans' Administration hospitals. For the general practitioner it would do much to enhance his prestige in the minds of the 19,000,000 veterans and their families. It hardly need be added that for cases requiring prolonged hospitalization and highly specialized care the veterans' hospital centers designed for this purpose are admirable and desirable.

In addition to, and in order to obtain the recognition of regimented medicine the causes for criticism of the general practitioner must be eliminated or minimized. To do this it is proposed that the training of the general practitioner be standardized and improved. In the past, the general practitioner has taken the same type of internship as the embryonic specialist. The rotating service consists in one to two months on each specialty service. The disadvantages of this system and proposals for correction have already been presented. The second year internship, the mixed residency and short residencies in various specialties frequently send a man into general practice with a rather confused idea of what the capabilities and limitations are. Because one was allowed to do a few appendectomies in a one-year internship, occasionally one honestly feels that one is competent to open an abdomen without supervision. The general practice service in teaching hospitals might do much to clarify in the minds of young physicians the limits within which they can safely practice. Training does not cease

with entry into practice, and the proper training of the general practitioner must continue as does that of the specialist. The addition of sections on general practice in the American Medical Association and other organizations is a significant forward step. It is proposed, however, to bring the program closer to home. Would one be justified in considering it the solemn duty of the specialist to keep the general practitioners of his community informed on those phases of his specialty which apply to general practice? Might not the specialist be considered partially responsible if a general practitioner who habitually refers patients to him makes an error in his field? It is urged that specialists accept this challenge as their contribution to the improvement of the status of the general practitioner.

To eliminate or minimize the criticism that many general practitioners attempt to encroach on the field of the specialist to the detriment of the patient, the general practitioner must set his own house in order. It is believed that the foregoing measures to improve the status of the general practitioner will give him sufficient pride in his field that the temptation to encroach on the specialists will be lessened. An honest confusion as to what his limitations are can be corrected by improved training methods. Fundamentally, however, this is an individual problem in ethics and must be worked out by individual general practitioners with the guidance of the medical organizations.

As a method of improving the educational standards, as a means to bring about the limitation of the work of the general practitioner to that for which he is adequately trained and as an agency through which educational material directed at the profession and the public might be disseminated, an organization limited to general practitioners and with standards sufficiently high to make membership a significant honor might be considered. That there is a need for the general practitioner to put his house in order is implied in the criticisms already discussed and in the fact that the prestige of the family physician is on the decline, as indicated by the trend toward his elimination. Individual action, group action in local medical societies and free discussions at medical gatherings can do much to eliminate the abuses now prevalent. Most specialists, however, have found it advisable to organize and set up standards in order to dignify their group, and such organi-

zation may be the answer for the general practitioner.

Conclusions

1. The outlook for the general practitioner of tomorrow is not encouraging in the regimented practice of medicine. Some hope in this field is seen in the agreements between the Veterans' Administration and the state medical societies. Proposals for recognizing the general practitioner by regimented medicine are not expected to make the regimented services particularly enticing to the general practitioner but could do much indirectly to improve his status in private practice.

2. The opportunity now available in the local care program of the Veterans' Administration is a real challenge to the general practitioner to prove his value to regimented medicine.

3. The outlook in private practice for the general practitioner remains good, and it is felt that the proposals presented can do much to improve his status in this field.

4. The status of the general practitioners of tomorrow depends on concerted action by the general practitioners of today.

Summary

A trend toward the concept that only specialists are competent to care for patients may be checked by adoption of the following plan:

I. Recognition of the general practitioner by regimented medicine through:

- A. Staff appointments for general practitioners in teaching centers.
- B. General practice services in teaching, military and Veterans' Administration hospitals.
- C. Perpetuation of the Veterans' Administration's system for care of the veteran in his local community with general practitioners participating.

II. Elimination of causes for criticism of the general practitioner through:

- A. Standardization and improvement of training of general practitioners.
- B. Limitation of the work of the general practitioner to that for which he is adequately trained.

III. Organization of general practitioners to implement these proposals.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M. D.

Chairman, Ft. Smith

Treatment of Coronary Thrombosis

In considering the therapy of coronary occlusion, one is met at the onset by certain inexorable indications which are imposed by the fact of the occlusion itself. Following the immediate treatment, there are many more or less important details of management which are a matter of judgment in each case.

Nothing should be left undone because of any possible unfavorable psychologic effect on the patient. If he becomes alarmed, it is usually not because of what was done, but because of the way in which it was done. The patient's chances of recovery should not be jeopardized because the physician hesitates to alarm him by initiation of a necessary detail of management. In too many cases the welfare of the patient is left to time, chance, and opiates, with more or less adequate rest in bed.

Three things should be done at once, each with a definite purpose; there is one thing which should not be done—also with a definite purpose:

1. Atropine, grain 1/100 or grain 1/75, should be given hypodermically at once.
2. Aminophylline, grain 7 1/2, or papaverine, grain 1 1/2, should be given at once, hypodermically, or slowly intravenously.
3. An opiate should be given to relieve pain and to lessen nervous apprehension and shock.

Nitroglycerin should not be given as a rule.

The patient should then be moved to a place where he can best be cared for, and where he is to stay until recovery is complete. A hospital is preferable.

When a coronary artery is occluded, a reflex occurs which tends further to decrease the blood

supply to the infarcted region, and to the remainder of the heart muscle. This decreased blood supply is due to vasoconstriction of the arteries supplying the uninvolved part of the heart muscle and is mediated through the vagus nerve. When the coronary arteries of dogs are ligated under full anesthesia, few die as a result. But it was shown by workers at the Banting Institute in Toronto that if a ligature were placed loosely about a coronary artery under anesthesia, and tied after anesthesia had worn off, most of the animals died. They died of ventricular fibrillation. This was obviated by administration of atropine or by vagal section or ganglionectomy. Since the flow through the arteries not involved in the ligation was not decreased after administration of atropine or ganglionectomy, the decrease must have been due to reflex vasoconstriction and not to the fall in systemic blood pressure resulting from the ligation. This work was repeated by LeRoy with similar results. When this observation was carried over to clinical work and atropine was given early, not only a reduction in mortality, but an improvement in the clinical course occurred.

To increase the flow through the coronary arteries further and to help increase the flow to the infarcted region through anastomosing vessels, aminophylline is given intramuscularly in doses of $7\frac{1}{2}$ grains. It also can be given intravenously, if given slowly. Because it increases coronary flow, immediate relief from pain may follow its use. The increased consumption of oxygen which accompanies its use is due, not so much to increased work of the heart muscle as to increased blood flow through the heart muscle and to increased utilization of oxygen. Papaverine can be given in a similar manner and is effective. It is preferred by some.

Aminophylline and papaverine should never be given together because of the possibility of a fall in blood pressure.

Here again animal experiments confirm the value of such drugs. When LeRoy repeated the work of the Toronto investigators, he found that not only was the mortality in the experimental animals reduced by the use of atropine, but that it was still further reduced by the use of a xanthine preparation at the same time. He found, as Smith had earlier, that the myocardial infarct was diminished in size in the dogs receiving aminophylline when the coronary artery was ligated. This is important because the smaller

the infarct, the less the endocardial involvement, and the less the endocardial involvement, the less the chance of mural thrombi and consequent emboli.

Even if pain is relieved by aminophylline or by papaverine, an opiate is usually advisable to abolish apprehension and shock.

The definite measures set forth should be instituted at once, if possible, before the patient is moved. Any moving should be done early, also, before there is time for any weakening of the myocardial wall.

As soon as the patient is moved to the place where he can best be cared for, or in the ambulance, if it is so equipped, administration of oxygen should be started. This should be done even though the patient appears to be in good condition. Subjective symptoms and objective signs cannot always be relied on to indicate the extent of the cardiac involvement. There is certain to be some degree of oxygen desaturation of the blood in every case, and just a little more oxygen to the infarcted region may save a great deal of damage.

The dose of atropine may not need to be repeated, but it may be administered at discretion at intervals of from four to six hours, if necessary. When the patient can take medicine by mouth, belladonna or atropine, or one of the atropine-like drugs can be given with a small dose of phenobarbital.

Treatment with one of the xanthine preparations or papaverine should be continued indefinitely. Intramuscular injection of aminophylline is not particularly comfortable, even when given with 1 per cent procaine hydrochloride. As soon as possible, some preparation administered by mouth should be substituted; this may be theophylline, theobromine or papaverine.

Any of the xanthine preparations may cause unpleasant symptoms, such as nausea, headache, or nervousness. They are less apt to do so if given during a meal. Often a patient who cannot take one preparation can take another without distress. Some cannot take the xanthine preparations at all. Papaverine is especially of value when the xanthine derivative cannot be used.

Enough phenobarbital or one of the more rapidly acting and more rapidly eliminated bar-

biturates should be given to insure rest and quiet. Opiates, as a rule, should not be used late in the treatment.

Quinidine should not be used routinely. It does render ventricular tachycardia and ventricular fibrillation less likely to occur, but at the same time that it decreases the irritability of the muscle, it decreases every other function of the muscle as well. When there is a rapid heart action with frequent ectopic beats, and there is reason to anticipate ventricular tachycardia, it may be well to use it. Ventricular tachycardia is only one short step from ventricular fibrillation and a fatal outcome. Ventricular tachycardia is an indication for use of quinidine. Early, energetic, thoughtful care renders such contingencies, as well as other unfavorable results, less likely.

Whenever the heart is even remotely involved, digitalis is the conventional drug to use. However, it has no desirable action in the ordinary case of coronary occlusion, and it does have several undesirable actions which should be avoided. It may constrict the coronary arteries when dilatation is desired. It may increase the irritability of the heart muscle, which, of all things, should be avoided when ventricular fibrillation is a possibility. And it may increase the coagulability of the blood. Later on, if passive congestions occur, it may be necessary to use digitalis, carefully.

The necessity for the use of heparin and dicumarol is not definitely known. Neither should ever be used without constant tests of blood coagulability and prothrombin time.

Pulmonary edema frequently occurs early in the attack. If it persists, one of the milder mercurial diuretics should be used in preference to hypertonic solution of glucose, which often increases the blood volume when the volume flow through the kidney is reduced.

Auricular fibrillation or flutter may occur at the onset. When they continue at the point of passive congestion, digitalis is necessary.

Heart block may occur, and is less serious untreated than treated. It usually yields to the initial therapy recommended for the coronary occlusion. Barium chloride should not be used, as it decreases the coronary flow.

Shock is the result of the occlusion, and is cared for by the measures already suggested.

The patient should be kept comfortably warm, without unnecessary additional heat. Intravenous administration of saline or glucose is not necessary and may do harm. The blood pressure is best left where it is, and vasoconstrictor drugs should not be used.

Pulmonary embolus is less likely to occur with early treatment of the occlusion, but if it does occur, atropine and aminophylline or papaverine should be given at once because of the reflex vasoconstriction of the coronary arteries which occurs in consequence of the embolus. In cerebral embolism, a halo of vasoconstriction about the embolus may do as much harm as the embolus itself. A great deal may sometimes be accomplished by the injection of the stellate ganglion on the affected side.

If diabetes is present, it should be cared for without insulin if possible. If insulin is necessary, it should be used in such a way that a little sugar always shows in the urine, and so that there is a high bulwark of blood sugar to guard against hypoglycemia.

The diet should be one which is easily digestible and does not cause gas. It should be barely sufficient for the caloric needs. The patient's desires should be consulted as far as possible. Duodenal ulcer and spastic colon are frequent, and are cared for by diet, phenobarbital and belladonna. If necessary, one of the heavier mineral oils or an emulsion may be used for the bowels. They are best used the last thing at night and the first thing in the morning, and never near a meal. If cathartics are necessary, the milder saline laxatives are preferable.

Rest in bed should be continued for at least six weeks or longer, and should be followed by a period of convalescence of at least equal length, depending on the judgment of the physician. The period of rest in bed cannot be shortened safely.

Care should be taken to make the period of rest in bed as pleasant and comfortable as possible, and not to enforce any needless restrictions. All the way through the entire course of treatment, the aim must be to afford the maximum assurance, but with firm adherence to the necessary rules.

N. C. Gilbert, M. D.,
Chicago, Illinois.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

WHEN the private physician makes a diagnosis of tuberculosis and succeeds in getting a patient under sanatorium care, he is apt to feel that his job is done. If that patient leaves the sanatorium prematurely, his physician will be handicapped in his subsequent efforts by the failure of this first hospital experience. A knowledge of some of the factors that lead tuberculous patients to leave hospitals against medical advice should help physicians to prepare patients for accepting and completing hospital care.

THE SIGNING OUT OF TUBERCULOUS PATIENTS

Those who are interested in helping a patient to use the medical care necessary for recovery and to accept a possible physical limitation, find challenging problems in work with the tuberculous. The importance of this may be realized when hospitals in different parts of the country report that from 22 to 65 per cent of their patients leave "At Own Risk (A.O.R.)."

The patients who refuse all treatment have not been considered. The focus has been on patients who have evinced a desire to get well but who during the course of treatment attempted to terminate their recovery process. All hospital personnel, including the social worker, must accept "It is never the body only which is out of health, but always the complete being." Often the reasons for leaving the hospital are obscure and great skill is needed to help the patient to be realistic and to direct himself toward the goal of complete recovery.

The treatment and hospitalization of patients with tuberculosis involves months or years of restricted activity. A young athletic boy, suddenly faced with tuberculosis, may revolt at accepting this state. Since the tubercle bacilli carry on their destructive work insidiously, the patient, after he has regained some strength, will insist that his cure is completed. This view is maintained despite the contrary evidence of X-rays and sputum reports. Perhaps the fear of the disease is so great as to cause the patient to reject its reality.

The older man and woman, accustomed to years of labor in factory and home, may also find it difficult to accept the new role of inactivity and dependency. Experience has not fitted them

to fill the passing empty hours. The thought of lying quietly in bed while the world hurries on is untenable and they are tortured by the desire to be back among the working multitudes.

This boredom is more readily conquered by patients accustomed to study or reading, or those who are fortunate enough to have a hobby. Hospitalization is a difficult experience for the majority, but it can be a constructive one. Rarely does a patient who has found activities that lead to growth and development, sign out against advice. There is also a distinct difference between those patients who have made their adjustment and those who have succumbed to the sheltered life of the hospital and have regressed to an infantile, dependent level.

There does not appear to be any constant point at which a patient may feel that the hospital is no longer bearable. Even when individuals may be apparently adjusted to the hospital routine, the inactivity may lead to cumulative effects until a breaking point is reached. A little supportive treatment at this time will often tide the patient over the rough spot.

An individual entering a hospital brings with him the sum total of his life experiences. He has certain ties, certain obligations, and these remain though they are altered by the new experience. Early contact with the patient and his family can give clues to the patient's motivations and the part the family will play. The marital strengths, the interfamily ties and strains, the relationships in a changing setting should all be weighed and evaluated with the patient. The patient must, if possible, be spared the worry and anxiety of the family. This cannot be done by simply hiding or ignoring real problems. If the family is aware of this, they can show the

patient their strengths in meeting problems and assure him that they can keep their balance.

The social worker is often faced with a recently admitted patient who demands to leave the hospital with or without the doctor's permission. An interview usually begins with the patient demanding "How can I remain here while my family starves?" The social worker can be of invaluable aid in directing the family to sources of help and thus make it possible for the patient to accept his hospital stay knowing that his family will not starve or go homeless.

Life in a hospital is complex. A patient is faced with the need to adjust to his companions, the doctors, nurses, and other personnel. He has to give up practically all his privacy, both physical and mental. There are new ideas to be adjusted to in this microcosm of all nations and races. It is not difficult for friction to arise between the patient and a person or routine. Personalities may clash and the sick person may feel that the only solution lies in leaving the hospital. Sometimes the patient does not indicate the real reason for signing out but gives the usual statement that he "can do just as well at home." Other patients are quite verbose regarding the sources of annoyance.

All members of the hospital team can play very important parts in helping the patient adjust, not only to his illness but to the hospital life. A healthy adjustment in the hospital implies a psychological awareness and acceptance of the illness. When the acceptance has not been achieved, the patient rejects the hospital as a symbol of the disease. In the adjustment of the patient to the hospital one factor that might be given special attention is the food. Tuberculous patients are very conscious of the role of food in their cure and of the variations in their weight. This is one of the chief topics of conversation. One director of a sanatorium when asked how he kept down his A.O.R. discharges to a surprisingly low figure replied that he gave the patients the type of food they would get in their own homes.

An analysis (such as this abstract) cannot give all the reasons why patients interrupt the treatment process. The individuality of every situation is marked, and therein lies the challenge. The problem is a big one. There has been a constant war against tuberculosis. In its earlier stages this fight was on a mechanical level of cleaning up slums, taking mass X-rays, or providing the proper type of hospital care. But now we have come to realize that we are dealing with human beings and the control of the disease will come only when the sick person is prepared to participate.

JOHN T. McLAIN, aged 66, Gurdon, died June 20th. A graduate of Memphis Hospital Medical College in 1912, he had practiced at Gurdon for 34 years and had been resident surgeon of the Missouri Pacific Lines for 30 years. He was surgeon for several lumber companies in the Gurdon area. He was a charter member and deacon of the Beech Street Baptist church and a member of the Masonic and Eastern Star lodges. Surviving relatives are his wife, a past-president of the Woman's Auxiliary to the Arkansas Medical Society, a son and two daughters.

JAMES ALLEN ROBINSON, age 78 years, died at his home in Cincinnati June 16th after a long illness. Born in Greenville, Tennessee, December 11, 1868, he was educated at Tusculum Presbyterian College and graduated from the University of Tennessee College of Medicine in 1894. He had practiced at his present location since 1895. He was an honorary member of the Washington County Medical Society and of the Arkansas Medical Society, a Mason and an elder in the Presbyterian church. Surviving relatives are his wife, three daughters and a son.

JAMES L. DIBRELL, age 66, Little Rock, died July 2nd. Born in Little Rock March 20, 1880, he attended the public schools of that city, Tharps Academy and Bethel Military Academy in Virginia, graduating from the University of Arkansas School of Medicine in 1904. He served an internship at Polyclinic Hospital, New York City. He was formerly a professor of anatomy in the University of Arkansas School of Medicine and had retired from active practice several years ago. He was a member of the Masonic bodies, the Arkansas Consistory, Quapaw Club, the Little Rock Country Club and a fellow of the American Medical Association. Surviving relatives are his wife, a daughter, and a brother, Dr. John R. Dibrell, of Little Rock.

LOUIS MARSHALL SMITH, age 42, Russellville, died June 5th after an illness of several weeks. Born in Russellville, he attended Henderson-Brown College, Arkadelphia, and graduated from Vanderbilt University College of Medicine in 1928. For many years he was identified closely with his father, Dr. R. L. Smith, in the operation of Saint Mary's Hospital in Russellville. He was a member of the Methodist church, of the Russellville Country Club, a past-president of the Rotary Club and had served the Pope-Yell County Medical Society in its various offices. Surviving relatives are his wife, his father, and two sisters.

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EDITORIAL

THE FIRST REPORT OF THE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS CONCERNING A STATEWIDE PREPAID MEDICAL CARE PROGRAM

C. R. HENRY, M. D.

Chairman

In accordance with the wishes of the Arkansas Medical Society to study and inaugurate a pre-paid medical care and hospital program, Charles R. Henry and Ellery Gay, representing the Committee on Medical Service and Public Relations of the Arkansas Medical Society; John Rowland, representing the Arkansas Hospital Association, and J. W. Coddington, Economist of the Arkansas Hospital and Health Survey, met with the following people in Chicago:

1. Dr. C. Rufus Rorem, director of the Blue Cross of the American Hospital Association, and Mrs. James F. Cowan, Jr., field director of that organization.

2. Mr. George W. Cooley of the Council on Medical Economics and Public Relations of the American Medical Association.

3. Mr. John R. Mannix, chairman of the Blue Cross Commission, director of the Plan for Hospital Care, the Chicago Blue Cross Plan.

4. Mr. Everette Jones, technical consultant for Modern Hospital Publishing Co., who was very closely identified with development of a Blue Cross plan and a prepaid medical care plan in Albany, N. Y.

5. Dr. Lon Morrey of the American Dental Association.

6. Mr. Maurice Norby of the National Commission on Hospital Care in Chicago.

The major points of the discussion were: (1) Need for interest of the medical profession; (2) Financing of a prepayment plan; (3) Type of organization; (4) Rates and coverage of benefits; (5) Administration.

While there are necessarily some variations among plans in other states, we found substantial uniformity, so as to afford us a number of feasible patterns. The committee is working in close cooperation with the Arkansas Hospital Association. A qualified disinterested consultant will meet with the committee during the month of August for the formulation of a definite plan for early submission to the House of Delegates.

AMERICAN ACADEMY OF PEDIATRICS STUDY OF CHILD HEALTH SERVICES

BARNETT P. BRIGGS, M. D.

Vice-Chairman in charge of study,
Arkansas Academy of Pediatrics

Post-war planning for child care has received much attention during recent years from many organized groups and individuals throughout the country, culminating in the legislation now before Congress.

The American Academy of Pediatrics, realizing that such planning should be done primarily by the physicians themselves, has launched the study of child health services. The aims of the study are:

1. To gather such news facts from which plans can be made for meeting the health needs of children.

2. To determine the extent and quality of the medical and health services now available.

Another fundamental purpose of the study is to stimulate local groups to discover for themselves the needs of their own communities and the facilities to meet the need. Although the members of the academy are committed to carry out the task, the success of this tremendous

undertaking is the responsibility of individual physicians everywhere.

The importance of the survey can not be over-emphasized. It is the first attempt of an organized group of medical men to inquire into its own affairs. The physicians have undertaken a fact finding survey to ascertain their strong and weak points.

Many organizations outside the rank of practicing physicians are quoting figures and making recommendations relative to the regulation of medical practice. The survey offers the practicing physician opportunity to determine the needs of his own state and to have facts to help determine the best methods to meet the needs.

The Arkansas survey is sponsored by the members of the Academy of Pediatrics in Arkansas of whom Dr. E. C. McMullen of Pine Bluff is the chairman. Mrs. Virginia Armistead has been loaned to the survey by the Arkansas Association for the Crippled, to act as executive secretary. The study is being financed by the State Board of Health, The Arkansas State Chapter of the National Foundation for Infantile Paralysis and The Arkansas Association for the Crippled.

In August or September, every practicing physician in the state will receive a short questionnaire. The way in which the physicians of Arkansas can cooperate is by filling out their questionnaire promptly and returning it.

THE SAN FRANCISCO SESSION OF THE AMERICAN MEDICAL ASSOCIATION

With an attendance of 7,746, the largest session on the Pacific coast and one of the largest of all time, the American Medical Association resumed annual meetings at San Francisco July 1-5, 1946. The business considered by the House of Delegates was important and comprised action taken to establish a division of public relations; expansion of the Bureau of Medical Economics with a competent economist in charge; an increased educational activity on the part of the Association with particular emphasis on the coming Centennial Year; change in duties of the Council on Medical Service and Public Relations emphasizing its responsibilities in the development and promotion of prepayment care plans. Among the other actions of the House of Delegates was a resolution asking a limitation of the Constitution of the Health Section of the United Nations that it deal with the problems of preventive medicine only and that the question of medical practice in any given nation not be the subject of consideration. The House of

Delegates voted to hold a supplementary session in each December and a committee was established to study and revise the Association's Constitution and By-Laws. Opposition to the Murray-Wagner-Dingell bill was again expressed but proposals for the extension of medical care which would not involve interference between doctor and patient by government were commended. The scientific sessions and the scientific and technical exhibits were hosts to large crowds each day of the session. H. H. Shoulders, Nashville, assumed leadership of the organization and the following were elected: Olin West, President-elect; Edward L. Bortz, Philadelphia, Vice-president; George F. Lull, Secretary; J. J. Moore, Treasurer; Roy W. Fouts, Omaha, Speaker, House of Delegates; F. F. Borzell, Philadelphia, Vice-speaker, House of Delegates; and C. W. Roberts, Atlanta, Trustee. The 1947 session of the Association will be held in Atlantic City, June 9-13; the 1948 session will be held in Saint Louis, and New York City was selected for the 1949 session.

RANDOM THOTS OF THE SECRETARY

June 20th. In seventy minutes of perfect flying weather to Prescott this afternoon, forced to pass up Buchanan's white-fenced pasture for a not-so-good landing field. Into town where many are gathered to start off the Tri-County Medical Society in good form, including Bob Watson, with a mustache; Sam Thompson and Lile, each boasting of having made the Journal of the A. M. A.; Norwood, with a seven-minute fast watch which we know can keep better time; C. K. Townsend, who was once a county society secretary and therefore vetoed suggestions to write the county society presidents; Allen Collom, whom we have not seen in a decade, and President Wade, who becomes forceful in stating just what should be done. There is much talk of many a socio-medical problem, even to a discussion of the relative census of religious denominations.

June 21st. This morning we watch the city of Prescott wake up (medical profession excepted) and then fly north at 4,000 feet to observe the Ouachitas with the first rays of the morning sun warming their peaks as fog blankets the intervening valleys; a glorious morning to be up in the "wide blue yonder."

June 23rd. Congratulations to a new pilot—Vincent Lesh, of Fayetteville, who has taken an airplane off the ground, flown it and brought it back down again.

June 26th. With Hathcock, Sr., on his first plane ride and at ease with the entire situation, and with Fowler, across Oklahoma and Texas this afternoon for an evening's stopover at Amarillo. With the complete disregard for weather that airline pilots can show, we plough through a local thunderstorm near Shamrock, Texas, which might well have been avoided by a slight deviation to the north and, as a result, dinner trays which rested on passengers' laps, are abruptly hoisted to the ceiling and thence downward, giving the once clean airplane the appearance of a hamburger stand after last night's football game.

June 27th. On TWA's milk run today affording the opportunity to study the geography of the Southwest in its unchanging pattern, relieved only by the oases of Albuquerque, Phoenix and the Colorado River. The air being rough, lunch is served to rear seats only, missing Louie Allen by but one seat, giving us "one up" on him this time anyway. Passing over Desert Center and we can more properly appreciate the endurance of the armored divisions which trained there and belatedly we offer our sympathy to Branch, Ken Thompson and Boydstone, who tarried there the hard and difficult way back in 1942-43.

June 28th. With but a brief opportunity to see San Francisco, one of our favorite cities, we spend the day with the College of Radiology where much of business is transacted but time afforded for some relaxation.

June 29th. Renewing acquaintance with more than one of the renowned eating places of the city and finding out that we are but an amateur city slicker when it comes to holding an unoccupied hotel room for the later use of Goldstein as a seized hat demonstrates. Recovering the hat and the room, we decide we will not try to spread our hotel accommodations so widely in the future. Tonight the radiologists make merry in annual banquet session, the far distant Pacific coast location not having curtailed attendance nearly so much as was expected.

June 30th. Incidentally, visiting the sessions of the Conference of State Society Presidents where we draw, in some unaccountable manner as often we do, a place on the resolutions committee and have to work our way out of the meeting. The conference well demonstrates that it is not leaders that American medicine needs; it is workers.

July 1st. With the House of Delegates this day meeting the veterans of many a previous session and the new 15 per cent (Julian Price's figures), missing Shanklin back home fishing in Indiana. Giving time again but expeditiously to the reference committee as assigned and visiting about the lobby. Tonight to the San Francisco dinner which makes much of the wonders of California wine and there's no doubt that many a highball drinker is impressed with the beauty and ceremony of wine drinking. We wonder, with all this controversy between the army and navy over a merger, if the army told the navy that it was going to sink its ships by atomic energy today.

July 2nd. The House of Delegates lingers long, but in quiet executive session this day, and with the adjournment, we visit Euclid Smith, comfortably located in a penthouse apartment, almost a perfect doll's house, but strangely ill-suited for one of Euke's bulk. So moving he goes down to Goldstein's room, which belongs in part to us until check-out time, when we abdicate to Goldstein.

July 3rd. Visiting the excellent scientific and technical exhibits today acquiring pencils, literature, toothpaste and oddly-assorted information of products and scientific advances. Seeing colleague Barlow and noting from the registration roster that four of Fayetteville's twelve active physicians are in attendance, which must constitute some sort of record. Tonight as many from Arkansas as can get together, the Strauss', the Kosminskys, Goldstein and his cousin, Allan Gilbert, Euclid Smith and Madam President Hames celebrate at the Exposition Sea Food Grotto where there is much of gaiety and fun by the wanderers.



MRS. FRED HAMES

Pine Bluff

President, Woman's Auxiliary to the Arkansas
Medical Society, 1946-1947

July 4th. And may the Philippine Republic prosper and grow great among the nations of the world! Breakfasting with the Oklahoma delegation, Stevenson, Rountree and Graham, all live-wires whom we are happy to have as neighbors. Election and the closing business of the House of Delegates is accomplished and away to the Oklahoma party, from which Allan Gilbert insists upon our departure to see the Top of the Mark, which we do with appreciation for his insistence, later joined by the Oklahoma delegation and sundry others from Arkansas and Kansas, the head waiter's caution to Euke Smith and Goldstein failing to stop them there any more than it would in Arkansas. A final impression of the day—tonight we saw open-toed shoes for men on display!

July 5th. Between planes, visiting Babe and Tommy Foltz at Los Angeles, two Arkansas-loving people who are finding California not a total blessed state. By DC-4 a massive airplane, with some 20 per cent of the 54 passengers air-sick as we travel to Tucson in two hours, and again stop over for two hours and a look at the quietness of the wintertime boom tourist town, strangely deserted with the thermometer at 100 plus. On into El Paso tonight and with escort to Juarez, which we close up at a late hour.

July 6th. Uneventfully back to Arkansas, missing plane connection at Little Rock, and riding the Missouri Pacific for the first time in many months, observing the complete change which has taken place: but one uniform aboard and when dinner is announced, all desiring to eat are seated at the first call.

PERSONALS AND NEWS ITEMS

Sam Phillips has completed a postgraduate course at Children's Memorial and Michael Reese Hospitals, Chicago, and has reopened his office in the Donaghey Building, Little Rock, for the practice of pediatrics.

President H. King Wade delivered the Commencement Address at the University of Arkansas School of Medicine, June 24th.

Frank A. Norwood has been elected surgeon of the Mena post, American Legion.

S. R. Boykin has moved from Crossett to Monahans, Texas.

The Clarksville Lions Club has elected Guy P. Shrigley, first vice-president, and G. R. Siegel, tail-twister.

W. W. Johnston, Conway, has been appointed to a three-year residency at Gracelands Hospital, Valhalla, New York.

Dr. and Mrs. Hugh Johnson, Fort Smith, spent a recent vacation on Lake Hamilton.

A. H. Maddox, who has been taking special work in Memphis following release from military service, has located at Paragould.

Drs. J. W. Butts, W. B. Connolly and J. B. Terry have been elected surgeons of the Helena post of the American Legion.

S. W. Douglas, Eudora, has been elected department surgeon, United Spanish War Veterans.

O. A. Jamison has been elected surgeon of the Tuckerman post, American Legion.

H. King Wade attended the recent meeting of the American Urological Association in Cincinnati.

J. Harry Hayes, Little Rock, attended the recent meeting of the American Association for the Study of Goiter in Chicago. At this meeting, Dr. Hayes was elected to membership in the association.

L. L. Hassell, formerly of Blytheville, is now with the Veterans' Administration office, Little Rock.

MARRIED—On June 15th, Jerome S. Levy, Little Rock, and Marion Lee, Indianapolis.

Dr. and Mrs. Pierre Redman, Mena, spent a recent vacation in Yellowstone National Park and other western points.

G. R. Siegel, Clarksville, addressed the Fort Smith Lions Club, July 9th.

W. T. Champion has been elected surgeon of the Stuttgart post, American Legion.

R. B. Robins, Camden, addressed the Arkansas Fox Hunter's Association at Beebe, July 12th.

The following were registered at the San Francisco session of the American Medical Association: B. E. Barlow, Dermott; W. R. Brooksher, Fort Smith; E. J. Chaffin, Hughes; R. E. Crigler, Fort Smith; W. A. Fowler, Fayetteville; A. A. Gilbert, Fayetteville; D. W. Goldstein, Fort Smith; John T. Gray, Little Rock; P. L. Hathcock, Fayetteville; R. H. Huntington, Fayetteville; L. J. Kosminsky, Texarkana; D. C. Lee, Hot Springs National Park; J. S. Levy, Little Rock; Howard Schwander, Little Rock; E. M. Smith, Hot Springs National Park, and A. W. Strauss, Little Rock.

Dr. and Mrs. Ralph Crigler, Fort Smith, spent a July vacation at western points, Dr. Crigler attending the meetings of the American Proctologic Society and the American Medical Association in San Francisco.

Dr. and Mrs. Earle H. Hunt, spent a recent vacation touring western United States and Canada.

H. H. Smith, Fort Smith, spent a July vacation in California.

"Management of Some Common Obstetrical Complications in General Practice" by Hoyt Choate, Little Rock, appeared in the July Southern Medical Journal.

E. J. Horner has been elected surgeon of the Jonesboro post, American Legion.

W. M. Parker has been elected first vice-commander of the DeValls Bluff post, American Legion.

R. B. Robins, Camden, recently appeared before the Senate Committee on Education and Labor at its hearings on the Murray-Wagner-Dingell bill.

M. E. Rust has moved from Harrison to Pawhuska, Oklahoma.

John L. Ruff has located at Magnolia.

Miles Kelly has been elected commander of the Sheridan post, American Legion.

Jim McKenzie has purchased the Josephine Hospital at Hope.

Max Hughes, who practiced at Walnut Ridge prior to military service, has located in Memphis.

A. M. Stuart has moved from Manning to North Little Rock.

D. M. G. Frailey has moved from Harrison to Mount Judea.

Thos. S. Van Duyn has been released from military service and has returned to practice at Stuttgart.

A. M. Elton, Jabez Jackson and T. E. Williams have moved into their new clinic building at Newport.

Ross Maynard and H. T. Capel have been elected surgeons of the Pine Bluff post, American Legion.

Allan A. Gilbert and Richard W. Miller have been elected commander and surgeon, respectively, of the Fayetteville post, American Legion.

John W. Sneed, Conway, is taking special work in electrocardiography at Cook County Hospital, Chicago, during August.

S. W. Chambers, Mountain Home, has been appointed part-time venereal disease clinician for Baxter County.

Karlton V. Kemp, Texarkana, has been appointed part-time obstetric clinician for the Arkansas State Board of Health.

G. R. Siegel acted as master of ceremonies at the recent Peach Festival at Clarksville.

PROCEEDINGS OF SOCIETIES

The Tri-County (Clark, Nevada, Hempstead) Medical Society, which suspended meetings during the war period, began regular meetings with a dinner session at Prescott June 20th which was addressed by H. King Wade, Hot Springs National Park, on "Proposed Federal Medical Legislation."

The Washington-Benton County Medical Societies held a picnic meeting at Brumfield's Hatchery July 2nd with the Washington County Medical Society as hosts. Out-of-town guests included: Dr. Robert Watson, Little Rock; Dr. and Mrs. Fred Krock, Fort Smith; Dr. Earle Hunt, Clarksville; Dr. and Mrs. H. A. Stroud, Jonesboro; Dr. S. A. Thompson, Camden; Dr. and Mrs. F. T. H'Doubler, Springfield, Missouri; Col. and Mrs. Stanley Gates, Fort Smith; Dr. H. King Wade and Dr. Rowland, Hot Springs; Dr. and Mrs. Gladden and Dr. and Mrs. Poynor, Harrison.

Dr. Friedman Sisco presided at the meeting, introducing the guest speaker, Dr. Robert Watson of Little Rock, who spoke on "Traumatic Injuries of the Central Nervous System."

On behalf of the Arkansas Medical Society, Dr. W. H. Mock, Prairie Grove, presented Dr. E. F. Ellis of Fayetteville with an engraved watch in esteem and appreciation of his years of interest in organized medicine.

Ruth Ellis Lesh, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro July 10th for the following program: "Dangerous Remedies," Judge I. M. Greer, Harrisburg; "Poliomyelitis," A. M. Washburn, Little Rock, and "Resume of Some Interesting Autopsies," J. C. Faris, Jonesboro.

J. H. McCurry, Secretary.

CORRESPONDENCE

FEDERAL SECURITY AGENCY

Washington

Procurement and Assignment Service
June 10, 1946

Dr. W. R. Brooksher,
Secretary, Arkansas State Medical Society,
602 Garrison Avenue,
Fort Smith, Arkansas.

Dear Dr. Brooksher:

For practical purposes the functions of the

Procurement and Assignment Service have been terminated and the activities of the several state offices brought to a close. The success of the program in meeting the needs of the armed forces without sacrificing the civilian population may be attributed directly to the patient and timeless devotion of many state committees and countless local advisers. Many of these committeemen and advisers are unknown to the directing board, except through the results of their efforts, and it would obviously not be practicable to undertake to communicate with them.

In a recent letter to each state chairman, I asked that the appreciation of the directing board be conveyed to all the state and local representatives whose full cooperation was essential to the ultimate achievement. The directing board, at its final meeting on May 17, 1946, resolved that the untiring efforts, kind tolerance, and successful accomplishment of these state committee members and local advisers be commended to the appropriate professional state society for suitable recognition by the society.

I hope you will draw this recommendation to the attention of your society, and that they will be disposed to afford some such recognition.

Sincerely yours,
Frank H. Lahey, M. D.,
Chairman, Directing Board.

THE CRAIGHEAD-POINSETT
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The members are a jolly bunch,
Come any kind of weather,
Blow high wind, rain, sleet or snow,
Once a month they get together.
They try to spread good fellowship
And learn the latest knowledge;

They attend medical meetings everywhere,
And some go away to college.

For there are so many angles in our work
To mystify the mind that we
Must work and never shirk .
Or we'll be left behind.

For no doctor knows his technic so well,
Or finds his cases all so plain,
But that it takes a lot of studying
If he expects to win the game.

The social functions are quite all right;
The fellowship is worth our time,
For when we gather around the board
Our meals are always fine.

A few of the old guard
Keep the home fires burning,
And if you attend a few meetings
You will be forever yearning.

The faithful members are the ones
Who gladly take their share,
And when the work is passed around
You will always find them there.

They are not the ones who changes
With the weather of the day,
But the ones who may be depended on
In every single way.

So come where hearts are warm and handshakes
firm,
And smiles forever last;
Where jealousy and bickerings
Belong to the forgotten past.

If you will come and visit
And take a part with us, I am
Sure you will be convinced
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SEARLE RESEARCH IN THE SERVICE OF MEDICINE

BOOK REVIEWS

Cornell Conferences on Therapy. Volume One. Edited by Harry Gould, M. D. Pp. 322. Price \$3.25. New York: The MacMillan Company, 1946.

Each of the fifteen chapters in this volume is devoted to a definite subject which will be of interest to physicians as conditions daily met in an active practice. Among these subjects are: Treatment of Heart Failure, Use and Abuse of Bed Rest, The Doctor's Bag, Management of Abdominal Distention, and the Rh Factors in Therapy. Developed on a conference plan, there is added interest to all discussions.

Diabetes, by Henry J. John, M. A., M. D., F.A.C.P., Lt. Col., M. C., Cleveland, Ohio. Saint Louis: C. V. Mosby Company, 1946. Price \$3.25.

This volume on diabetes is based entirely on the author's experience in the field of diabetes. It is a well written volume and should be a great help to the busy practitioner to rationalize and utilize the current knowledge on diabetes, keeping in mind that the average medical man is not called upon to delve into the intricacies of diabetes in its everyday practice. Since so much progress has been made in the past two decades in the management of diabetes, the author feels that only

those who have followed it closely can be in full possession of the essential information connected with such progress, and it is in this text that he has set forth a worthwhile book that should be of considerable value to all who are interested in this field of work. Such subjects as pregnancy and diabetes, hyperthyroid and diabetes, with a full discussion of diabetes in children, occur to me as being the outstanding chapters in this book. There is also a discussion of treatment of diabetic coma and arrangement of diet, which have been greatly simplified.

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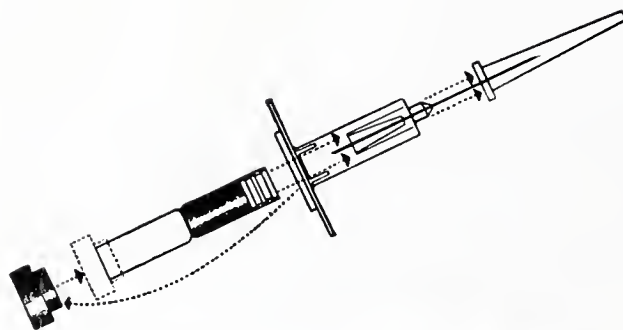
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Vol. XLIII

LITTLE ROCK, ARKANSAS, SEPTEMBER, 1946

No. 4

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

COMMITTEE ON THE HEART ARKANSAS MEDICAL SOCIETY

C. T. CHAMBERLAIN, M. D., Chairman
Ft. Smith

The Long-Range Care in Cases of Myocardial Infarction and Angina Pectoris

Discussion of this subject presupposes acceptance of the following thesis: Angina pectoris and myocardial infarction have the same pathogenesis, namely, sclerosis of one or more of the coronary arteries. Only broad principles of treatment can be outlined, since problems differ greatly from case to case. Furthermore, since the course of the disease often is unpredictable, readjustments in the program may be necessary from time to time.

Physical Activity

The patient with established angina of effort does not require rest in bed. In fact, moderate exercise, such as leisurely walking on level footing, and not enough of it to produce angina, probably is preferable because it may promote the development of collateral coronary circulation. The patient usually knows how far he can walk before angina occurs and he should be instructed to rest for a few minutes before he reaches that point and before he proceeds farther. The patient must be warned never to continue walking when he has an anginal attack. He should always stand or sit until the attack wears off.

If at any time a prolonged and severe attack of pain should occur, which the patient easily recognizes as different from that to which he is accustomed, exercise must be abruptly curtailed. Theoretically, a period of several weeks of rest in bed is indicated, but this is often impracticable. However, at least a week of rest in bed should be required. The temperature should be recorded each afternoon, the leukocyte count

and sedimentation rate determined thirty-six hours after the attack and an electrocardiogram made on the second and sixth days after the attack. If, at the end of the week, change in any of these factors has not occurred, the patient may be allowed out of bed, in his room, for another week. Should nothing further develop, normal activity may be resumed gradually over the next month. If at any time during this period another attack occurs, more prolonged rest in bed should be instituted. Many times, however, nothing further happens for a long time and, under such circumstances, if the patient is forced to be inactive, often he becomes restless and he may lose confidence in the physician.

These same principles apply to a patient whose angina of effort becomes progressively more severe and more frequent, whose pain begins to appear when he is at rest, or whose angina suddenly appears or recurs after recovery from myocardial infarction.

In general, then, the patient should be encouraged gradually to resume activity but, at all times, within the limits of his tolerance. This is especially important in the months following the acute episode. Development of complications, especially congestive heart failure, would call for further restrictions and the methods usually employed under such circumstances. Whether resumption of the previous occupation is allowed, depends on these and other factors. A highly nervous temperament, severe hypertension, or angina pectoris induced by slight exertion may make retirement from business or a change of occupation advisable.

Psychotherapy and Routine Living

It would be trite to set down in detail the principles of psychotherapy for patients with disease of the coronary arteries. In spite of the gravity of the disease, many adjust well to it. A few give way to anxiety neurosis. To intelligent patients, the physician must explain the nature of the ailment, pointing out, however, nature's wonderful method of utilizing and building up the collateral circulation, the fact that a small scar in the heart muscle may not seriously impair its function and the growing knowledge that the

patient has a chance for a number of years of happy living. As Barnes stated, "Whatever the relation of coronary sclerosis and stress of living may be, the fact remains that coronary occlusion and advanced coronary sclerosis occur frequently in those who have driven themselves to the breaking point. Many of these patients are grievously tired. A prolonged period of rest restores shattered nerves and enables the patient to relax as he has not done in years. He begins to look at himself without emotion and to see the enormity of his past mistakes. He then resolves that on resumption of activity he will adhere to a sensible program of living. Such a patient evolves a philosophy of contentment with a lower level of activity which is the best portent that he will survive and enjoy a considerable period of future happiness and usefulness."

When and if work is resumed, with responsibility reduced to the possible minimum, a noon-day period of recumbency of a half hour to an hour, complete relaxation after working hours and nine or ten hours of rest in bed at night are important. Smoking should be abandoned. The drinking of two or three cocktails or highballs is permissible and even desirable, however, provided whiskey is well tolerated, that is, provided it does not cause giddiness or mental abandon. Many investigators have demonstrated the effect of smoking on the peripheral vessels, and one of the latest studies has supplied evidence that arteriosclerosis obliterans and thrombosis are of more common occurrence among smokers than among non-smokers. The vasodilating effect of alcohol, on the other hand, is well known.

Temperance in eating is important and at least a half hour of relaxation in a chair after meals should be advised. Theoretically, a diet low in cholesterol is indicated. Excessive bodily poundage should be gradually eliminated. A day or two in bed once or twice a month is helpful, more perhaps for the mental quietude it engenders than for any important direct effect it has on the coronary circulation. Sexual intercourse, if indulged in, should be performed in a leisurely fashion. Straining at stool and venturing out in windy, cold or stormy weather should be avoided.

Use of Drugs

The nitrates are still drugs of great value for the anginal attack. They are of questionable usefulness, however, and may even be harmful, in attacks of so-called coronary insufficiency, that is, insufficiency of a more serious order than that which causes angina of effort. Nitroglycerin (glyceryl trinitrate) in doses of 1/200 grain

(.00032 gram) dissolved under the tongue remains the drug of choice for the anginal attack. The tablets should be fresh and preferably first crushed by the teeth. If the patient anticipates the necessity for more walking or excitement than is usual for him, he may take a tablet of erythrol tetranitrate (1/4 or 1/2 grain; 0.016 or 0.032 gram, fifteen minutes beforehand, or one of mannitol hexanitrate (1/2 or 1 grain; 0.032 or 0.065 gram) thirty minutes in advance. The effect of the former lasts about three hours; that of the latter, four to five hours.

The prolonged pain and various degrees of circulatory collapse associated with acute attacks of coronary insufficiency may require administration of opiates for relief. However, prompt response frequently is obtained by administration of a high concentration of oxygen, or whiskey, or both. The initial dose of morphine usually should be 1/4 grain (0.016 gram). In severe cases, aminophylline may be administered intravenously in doses of 3 3/4 to 7 1/2 grains (0.25 to 0.482 gram) every four hours for three or four doses if the symptoms continue. Likewise, papaverine hydrochloride may be injected subcutaneously in doses of 1 1/2 grains (0.1 gram) every three or four hours. Whether such drugs as heparin and dicumarol should be used routinely, in the hope of preventing or abating thrombosis, is unsettled at present.

The purine drugs are widely used on the assumption that they increase blood flow in the coronary arteries, but their actual value in the continuous treatment of sclerosis of the coronary arteries is still debatable. Since the preponderance of evidence is in their favor, they probably should be used unless and until more knowledge shows them to be of small value. The four preparations most widely used are theobromine sodium acetate (Thesodate), 3 3/4 or 7 1/2 grains (0.25 or 0.482 gram) per dose, theobromine sodium salicylate (diuretin), 7 1/2 to 15 grains (0.482 to 1 gram) per dose, theobromine calcium salicylate (theocalcin), 7 1/2 grains (0.482 gram) per dose, and theophylline ethylenediamine (aminophylline, euphylline, and thephyldine, or metaphyllin), 1 1/2 to 3 grains (0.1 to 0.2 gram) per dose, after meals and at bedtime. These drugs, as well as erythrol tetranitrate and mannitol hexanitrate, are marketed alone or in combination with phenobarbital, 1/4 grain (0.016 gram) for the smaller dosages and 1/2 grain (0.032 gram) for the larger. The addition of the phenobarbital, the most valuable of the sedatives, is preferable

except in the rare cases in which drowsiness is too pronounced.

Recently Rabb has advocated the use of thiouracil for the purpose of decreasing the rate of metabolism and thereby relieving the heart of some of its burden. He reported excellent results. However, Di Palma and MaGovern have not had such happy experience. They had to abandon the treatment in four of eight cases without giving any relief. The other four were benefited for a while only. The authors concluded that the drawbacks—toxicity, necessity for close supervision, failure to lower metabolic rate when it is low to start with, tendency toward retention of water and necessity for continuous treatment—were sufficient to limit its use in cases in which the basal metabolic rate is elevated to begin with, and perhaps as a therapeutic test with a view toward thyroidectomy. On the other hand, Lerman and White recently have reported beneficial effects from the administration of small doses of preparations of thyroid to twenty-one patients. Increasing the metabolic rate is accompanied by general vasodilatation, which may decrease the work of the heart even though the cardiac output per minute is increased.

Other Therapeutic Measures

Surgical treatment has been employed for angina pectoris since 1916, when Jonnesco performed cervical sympathectomy. Later, J. C. White resected the upper sympathetic dorsal nerve root connections with success in obstinate cases. Less drastic was the injection (Swetlow) of alcohol into the first five thoracic dorsal nerve roots. This procedure requires considerable skill and, according to P. D. White, "should be reserved for particularly obstinate or crippled cases of angina pectoris." Raney, in 1939, relieved eleven patients by means of section of the preganglionic fibers. This procedure interrupts influences "that would tend to cause coronary constriction without interfering with the warning signal of coronary insufficiency itself." Total thyroidectomy, once advocated, has been largely discarded. Still experimental are the procedures of pericardial implantation of subpectoral muscle or omentum, establishment of pericardial adhesions and ligation of the great cardiac vein.

Roentgen therapy applied over the upper six thoracic sympathetic rami communicantes has been reported to be beneficial but has not gained wide acceptance. The same is true of radiation of the suprarenal glands.

Wallace M. Yater, M. D.,
Washington, D. C.

ACUTE SURGICAL INFECTIONS OF THE KIDNEY*

T. D. BROWN, M.D., F.A.C.S.
Little Rock

Acute infections of the kidney that do not respond to conservative treatment and are jeopardizing the patient's life should be treated surgically. The pathological changes may have developed as a slowly progressive destruction or may follow an acute fulminating infection.

Ureteral catheter drainage is a minor surgical procedure which is frequently overlooked in favor of the major procedure. Not infrequently, catheterization of the ureter for ureteral dilatation or for continuous drainage of an infected kidney may tide the patient over a grave crisis. Ureteral catheterization is universally accepted in the presence of chronic renal infections; however, there is a certain hesitancy to its use in acute renal infections. In the majority of acute cases, the advisability of an operation can not be determined immediately. The patient may be so sick that one hesitates to do nothing, and yet, not sick enough to warrant surgery. In such instances, ureteral catheterization may give some relief or may intensify the situation to such an extent that surgery is definitely indicated. The diagnosis is very difficult in a great many cases, and, even with all the diagnostic methods, the physician may fail to diagnose a serious or even a fatal lesion of the kidney.

There is a difference between the clinical picture of the cortical abscess with coccal origin and the ordinary kidney pelvis infections caused by such organisms as the colon, proteus, pyocyaneus and other bacilli. The colon bacillus most frequently causes acute pyelitis or pyelonephritis; however, it may cause multiple foci of suppuration in the renal cortex, giving very little pain or localized tenderness. Staphylococcus infections of the kidney are usually limited to the cortex and may be very difficult to diagnose. If the cortical infection does not involve the pelvis, the kidney function tests and pyelograms are usually normal and the urine is clear, while in pyelitis and pyelonephritis, pyuria is characteristic and usually some red blood cells are present. The clinical picture of cortical renal abscess may vary from that of an acute, fulminating infection to that of a subacute or chronic process. The early symptoms depend somewhat upon the size and location of the abscess. Fortunately,

*Read before Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

most cases present a rather typical picture and are recognized fairly early.

Occasionally one will see a patient who has an extremely acute, unilateral, fulminating, hematogenous infection occurring as a general overwhelming sepsis. If the signs and symptoms are unilateral, early surgical interference is indicated. However, the situation may be so alarming or the general condition of the patient may be so poor that surgery is postponed or omitted. Renal cortical abscesses and carbuncles of the kidney may subside with conservative treatment but a large number develop into a perirenal or perinephritic abscess which seldom subsides without incision, drainage, and decapsulation of possibly nephrectomy.

Cortical abscesses of the kidney caused by streptococcus and staphylococcus are usually secondary to a focus of infection or an abrasion of the skin which occurred weeks or even months prior to onset of symptoms. The more common foci of infection are the teeth, tonsils, sinuses, infected wounds, nasopharyngitis, osteomyelitis, and abscess of the prostate gland. Renal cortical abscess seldom results from a systemic infection which does not give a history of skin suppuration.

One or more local abscesses develop if the glomerular vessels or terminal branches of the arteries under the renal capsule become occluded by embolus. The symptoms vary according to the virulence of the organism and the patient's resistance to the infection. The so-called carbuncle of the kidney is the end result of an embolus lodging at the bifurcation of a vessel well below the renal capsule, producing small abscesses which coalesce in the area of infection. Occasionally the carbuncle will subside after a long and septic course without surgical interference. However, the majority terminate in the perirenal tissues to cause a perinephritic abscess. The diagnosis of metastatic coccic infections of the renal cortex has been simplified somewhat by physicians having a better understanding of the pathological changes and staying on the alert for such conditions.

The symptoms of cortical abscess are very striking due to considerable tension within the renal capsule, but when the abscess ruptures, the symptoms subside temporarily, only to recur when the pressure increases in the perirenal tissues. Tension in the perirenal space gradually increases to cause localized symptoms which partially subsides as the infection extends downward through Gerota's fascia toward the bony pelvis. During this trend of events, the physician may be led to believe that the patient is recovering

spontaneously; however, when surgery becomes imperative, a cortical abscess or renal carbuncle may prove to be the etiology of a perinephritic abscess.

Renal carbuncle symptoms are characteristically ushered in with a septic temperature, with or without chill or rigor, and with pain in one or both lumbar regions. Upon physical examination, the renal area may reveal nothing except some percussion tenderness in the costo-vertebral angle over the kidney. The septic temperature, general malaise, lack of appetite and loss of weight cause the patient to become anemic and pasty looking. During this febrile period, leucocytosis is constant and the urine examinations show little or nothing so long as only the renal cortex is involved. Kidney function tests and blood examinations for retention products are usually within normal limits.

The clinical picture of renal abscess has changed during the past few years. Not so many years ago, the physician was seldom consulted until there was a bulging, tender abscess in the lumbar region simulating a hip infection or Pott's disease.

The diagnosis of cortical renal abscess, renal carbuncle or perinephritic abscess may be very puzzling and may require several days. Repeated pyelograms and intravenous urograms may reveal a separation and deformity of the calices produced by the cortical abscess or they may reveal a communication of the abscess with the kidney pelvis. During a series of X-ray examinations, the size, shape and position of the infected kidney depend upon the location and extent of the involvement. Pyelographic studies during respiration may demonstrate immobility of the kidney and diaphragm by a clear picture on the side affected and a blurred shadow on the side not involved. Fluoroscopic examination may also reveal the kidney and diaphragm fixation caused by local edema or exudate from the upper pole of the kidney. Stereoscopic films may reveal the course of the ureter and its relations to the kidney shadow. Occasionally, the kidney is displaced anteriorly or medially. If the anterior surface of the kidney is involved, the infection may extend into the anterior perirenal space presenting symptoms of an acute surgical abdomen, often suggesting appendicitis, acute pancreatitis, cholecystitis, liver abscess or even a visceral perforation. Cortical abscesses involving the lower pole of the kidney may produce irritation of the peritoneum and if the surgeon is not aware of the clinical entity, the field may be approached transperitoneally. This procedure

would only invite further complications, especially that of peritonitis.

The pathognomonic X-ray findings of perinephritic abscess are: (1) Obliteration of psoas shadow and renal outlines, (2) Scoliosis of the lumbar spine with concavity on side of lesion, and (3) Immobility of the kidney and diaphragm on the involved side. One or more of these findings may be present.

Aspiration of pus with a long needle or a small trochar in the perirenal space cinches the diagnosis of localized abscess.

The treatment of acute surgical infections of the kidney is determined by studying the clinical history, surgical, urological and laboratory findings and applying good common "horse" sense. Frequently, there is a tendency for the surgeon to lean too far to the side of radicalism when dealing with acute renal infections. In the presence of focal suppurations, it is difficult to draw a line between cases that should be treated conservatively and those that should have nephrectomy. Removal of the infected kidney may give a cure unless a metastatic infection develops in the other kidney. Incision, drainage and decapsulation is conservative surgical treatment for cortical abscesses and carbuncles of the kidney. Adequate drainage is assured by placing a large penrose drain in front and behind the decapsulated kidney. The wound should not be sewed tightly to minimize the chance of retention abscess formation and to facilitate digital exploration of the wound, should there be a recurrence of temperature elevation. Incision and drainage is a relatively simple procedure which is usually sufficient for a cure. Sulfonamide therapy enhances a cure providing a blood level of 8 mg. per 100 cc. is maintained. Sulfonamides in the powder form deposited in the infected wound are not readily absorbed and may become a well organized deposit which acts as an irritant. In a few cases, it has been necessary to remove this deposit surgically. Neoprontosil solution or microform sulfathiazole suspension are easily absorbed, do not form a deposit and may be instilled into the wound daily to shorten the period of drainage. Penicillin injections have apparently been efficacious in early cases, but of little value later in the disease. Satisfactory results will be obtained if the infecting organism can be reached, if there is free drainage, and if the organism is sensitive to penicillin. Conservative radical surgery is usually sufficient, but when incision, drainage and decapsulation are not adequate for a cure, nephrectomy can be done later through the same wound incision. Radical kidney surgery may sometimes be done unwisely

because of our knowledge that one normal kidney is more than adequate to sustain normal life.

If an acute surgical infection of the kidney is bilateral, one should be extremely cautious about doing a nephrectomy. The removal of a suppurating kidney on one side does not cause a slight suppuration in the other kidney to subside, and therefore, in bilateral renal infections nephrectomy should be done only after all factors are carefully considered.

Conclusion

Acute surgical infections of the kidney are frequently difficult to diagnose. A careful history, physical examination, clinical observation, X-ray and laboratory findings are necessary in making a correct diagnosis. Surgical incision for adequate drainage is indicated in the majority of cases. Sulfonamide and penicillin therapy are adjuncts in the treatment of acute surgical infections of the kidney.

ANNUAL FALL CLINICAL CONFERENCE

The Kansas City Southwest Clinical Society

The annual conference will be held in the Municipal Auditorium, Kansas City, Missouri, October 7, 8, 9, 10, 1946.

Distinguished guest speakers are: E. T. Bell, Minneapolis; Louis A. Buie and John Lundy, Rochester; Richard B. Cattell, Boston; Warren H. Cole, Paul H. Holinger, Walter L. Palmer, Herbert E. Schmitz and Willard Van Hazel, Chicago; Charles A. Doan, Columbus; A. I. Folsom and Tinsley R. Harrison, Dallas; L. H. Garland, San Francisco; Paul B. Magnuson, Washington, D. C.; R. Glen Spurling, Louisville, and E. H. Watson, Ann Arbor.

The Monday evening meeting, a joint one with the county medical societies, will be a clinicopathologic conference. E. T. Bell, M. D., will direct and Doctors Cattell, Doan, Garland, Harrison, Lundy, Van Hazel and Watson will participate.

Daily features of the conference will include radio broadcasts, round table luncheons, scientific exhibits and movies and technical exhibits.

The "stag" dinner with entertainment will be Tuesday evening, and the alumni dinners, Wednesday evening.

The women's committee have arranged special entertainment for the visiting women.

If you have not received a copy of the Kansas City Medical Journal, one will be sent upon request to the Executive Office, 630 Shukert Bldg., Kansas City 6, Mo.

THE USE OF THE NASOPHARYNGEAL RADIUM APPLICATOR*

JOHN WILLIAM SMITH, M.D.
Little Rock

History

It has been known for forty years¹ that lymphoid tissue next to sex cells is the most sensitive tissue in the body to irradiation. Lymphoid tissue is normally an integral part of the mucous membrane of the pharynx and nasopharynx. It is so widely distributed over the posterior part of the septum and posterior walls of the pharynx that complete removal by operation is impossible. Because of this and due to its sensitivity to irradiation, X-ray therapy has been given for a number of years.

As it requires a large dosage of X-ray and repeated treatments, about ten years ago Dr. S. J. Crowe² of Johns Hopkins first used radium in the nasopharynx for the purpose of reducing lymphoid tissue. Since that time several men have employed this means of treatment, particularly Fowler at the Presbyterian Hospital in New York, and later he used radon applicators in a large number of flying personnel in the European Theater of Operations. Crowe at Hopkins for the last several years has stopped using radon and is at present using radium sulfate applicators entirely.

In the spring of 1944 the Air Surgeon in the Surgeon General's Office obtained the services of Dr. Crowe, who in turn gave a course in the examination of the nasopharynx and the use of the radium applicators to ten otologists in the Air Forces of the United States. I was fortunate enough to be chosen as one of the ten. After receiving this course, the ten of us were scattered throughout the Air Forces all over the world. The following year 6,881³ men were selected for treatment, receiving a total of 14,344 treatments. in the Third Air Force, of which I was the examin-

ing otolaryngologist, we examined over 4,000 patients, and treated 1,177 for a total of 3,289 treatments. Since being relieved from the Army, I have treated 114 patients, receiving a total of 342 treatments.

Description of Applicator

The nasopharyngeal applicator is a monel metal or a stainless steel tubular chamber 15 mm. in length, with an inside diameter of 1.7 mm., a wall thickness of 0.3 mm. and an outside diameter of 2.3 mm. The chamber contains approximately 50 mg. of radium sulfate. To absorb all beta rays only 0.5 mm. of platinum or gold is required, 1 mm. of lead, 2 mm. of brass or monel metal and 10 mm. of aluminum. Radium sulfate radiates alpha, beta and gamma rays. The alpha rays are completely absorbed by the monel metal, emitting only beta and gamma rays. The beta rays are the most important therapeutic agent as most of them are absorbed by the tissue of the nasopharynx, about 75% being absorbed in the first 3 mm. of tissue. In contrast less than 10% of the gamma rays are absorbed. The effects aimed at and obtained by radiation therapy are entirely dependent upon ray absorption. Rays that pass through the body and are not absorbed have no therapeutic effect.

Examination of Patient

All patients coming to the otolaryngologist having a symptom of increased lymphoid tissue, in addition to having the usual ear, nose and throat examination, must have a thorough visualization of the nasopharynx with a good nasopharyngoscope. The procedure of doing this is simple. The mucous membrane along the floor of the nose on one side and the adjacent mucous membrane of the septum is cocaineized with an applicator dipped in 10% cocaine. The nasopharyngoscope is then passed along the floor of the nose into the nasopharynx. The ostia of the eustachian tubes are thoroughly examined. The posterior pharyngeal wall and particularly the fossa of Rosenmueller is examined. At the same time the patient is asked to say "K K K" and the motility of the torus tubarius is examined. The amount of lymphoid tissue found is then noted in quantitative amounts.

Treatment

If the patient is one chosen for treatment,³ he is then placed on a cot or bed in a comfortable lying position and the nasopharyngeal applicator is then passed along the floor of the nose into the posterior passage with the tip of the applicator containing the radium sulfate lying at a 90° angle and immediately adjacent to the tissue surrounding the ostia of the tube. The

*Read before Section on Eye, Ear, Nose and Throat, Arkansas Medical Society, Little Rock, April 16, 1946.

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dosage that has been found most effective with this applicator is one gram 25.5 second on each side of the nasopharynx. Since the applicator contains only 50 mg. or 1/20 of a gram, the dosage is 25.5 times as long, 510 seconds, or 8 minutes minutes and 30 seconds on each side. Should the applicator contain an appreciably smaller or greater amount of radium (one to two milligrams either way will make no difference) the time left in the nasopharynx would have to be increased or decreased to the proper desired dosage of 1 gram 25.5 seconds.

The nasal applicator must be treated as a delicate instrument. The beta and gamma rays given off are constant, so long as the chamber containing the radium salt is hermetically sealed. If even a very small break in the applicator occurs, it should be immediately withdrawn from usage and be returned to the radium company for check-up and repair.

An alarm clock or electric timer is always set for a period of 8½ minutes and in addition to this I always have the patient check with his own watch or with mine to be certain the time does not exceed the described dosage.

The recovery period of nasopharyngeal tissue after a moderate radiation varies from three to four weeks. It is because of this that the interval between treatments has been fixed at twenty-five days, that is, not less than twenty-five days nor more than thirty-five days. As a rule three treatments are adequate but in refractory cases four or five may be necessary.

The time the applicator is left in the nasopharynx is the same for infants, children or adults. This is a safe dosage as the object of all treatments is to remove hyperplastic lymphoid tissue.

After removal of the applicator from the patient's nose, it is washed with cold water, then with a hand brush, and placed back in a container of alcohol inside of a lead chamber. It is left here until further usage.

The most important protection for a person using the radium applicator is distance. The intensity of the radiation varies inversely with the square of the distance. At a distance of one foot the radiation is 1×1 equals 1, which is called unity. At ten feet, 10×10 equals 100 and the intensity is 1/100 of what it is at one foot. At twenty feet, 20×20 equals 400 and the intensity is reduced to 1/400, so if the personnel around the radium stays most of the time at a distance of twenty feet there would be very little danger of absorbing rays. However, all personnel using the radium should be examined every three or four months to determine any drop in the blood count.

In treating the nasopharynx with radium, it must always be borne in mind if there is a large amount of lymphoid tissue present it must first be removed surgically. Also if there is a concurrent sinusitis or nasal pathology, such as polyps, these must also be treated before successful radiation can be obtained. Where a child has had a previous adenoidectomy it is unnecessary in most cases to do a secondary adenoidectomy before using the irradiation.

In reporting my cases, I will delete the 1,177 cases treated in the Army which I gave over three thousand treatments and only report the 114 patients I have treated since being relieved from the service, as the cases treated in the Army were a selected age group and the ones treated in private practice are of all ages and having more varied complaints. All 114 cases reported received at least three treatments. These cases can be broken down into the following groups: 9 cases of hay fever, 29 cases complaining of large amount of post-nasal drip, 4 cases of asthma, 60 cases of hard of hearing, and 12 cases of ringing of ears.

Of the cases treated, the following showed no subjective improvement: 3 cases of hard of hearing, 4 cases of ringing of ears, 2 hay fever, and 1 post-nasal drip. In breaking this down, it is seen that the cases complaining of ringing of ears received the least benefit, and for some reason all four of the asthmatics received benefits. I believe this can be explained by the fact that radium rays kill bacterial infection hovering in the lymphoid tissue, and undoubtedly all four of these cases were suffering from an intrinsic allergen. The large number of patients complaining of post-nasal drip who had no sinus infection received a higher percentage of benefit because the source of production, that is, the lymphoid tissue in nasopharynx, was completely obliterated. The large number of cases of hard of hearing receiving benefit was caused by the removal of the obstruction of the eustachian tubes.

It must be borne in mind that in treating such cases as I have mentioned that they must first be examined and found to have an increased lymphoid tissue in the nasopharynx without any other nasal pathology. The hard of hearing cases are all carefully selected to be the obstructive type and not a nerve loss. The asthmatic and allergy cases were all refractory cases referred from a competent allergist. The improvement noted was both objective by re-examination of nasopharynx and subjective by questioning the patient.

It will be noted that none of the cases re-

ported in this paper have been tested with an audiometer. All of the examination was done with tuning forks, whispered voice and questioning the patient as to his auditory acuity to conversation and the radio.

Conclusion

(1) The radium nasopharyngeal applicator has been found to be the best source of irradiation to the nasopharynx and also simple to use in the hands of a competent otologist.

(2) By thorough examination of the nasopharynx, many cases are found in not only children but in adults who are suffering from an increase in lymphoid tissue of the nasopharynx. The presence of lymphoid tissue in adults has been thought by physicians, and I might say by some otologists, to be a rarity but by thorough examination it has been found to be present very frequently. In fact, 33 1/3% of all flying personnel in the First Air Force of the United States Army was found to have an increase of lymphoid tissue in the nasopharynx.

(3) The use of radium in reducing lymphoid tissue in the nasopharynx has been found by usage to be beneficial in a large percentage of cases complaining of difficulty in hearing, increased post-nasal drip without sinusitis, and in many cases of allergy.

(4) In all of the cases treated by me both in the Army and private practice, no definite reaction has been seen. However, several patients have complained of symptoms of a fresh cold.

Discussion

After Dr. Smith's paper (during which he also presented in manual form a comprehensive study of six thousand patients who were given this treatment) Dr. Cook, chairman of the section, asked, "Does anyone have any questions to ask?"

Dr. Henry: "I would like to ask Dr. Smith what he does about obtaining an examination (with pharyngoscope) on these children from six months to six years old. We have found you can't do a very satisfactory nasopharyngoscopic examination on these children. However, we have been using the pharyngoscope a little more. We usually run an audiogram on the children over six years old. What do you do with the children?"

Dr. Smith: "Well, as I have said, I have just treated 114 cases in private practice. When I examine a patient who is too young to cooperate, I mummify them, put them on the table in a recumbent position, and after anesthetizing the nose with 10% cocaine, I pass the nasopharyngoscope into the nasopharynx for examination. It is

a known fact that all children who have not had an adenoidectomy have lymphoid tissue in the nasopharynx. Dr. Crowe and his assistants at Hopkins have been treating these children without examination. I can see no reason for condemning them for such practice. However, all children who have adenoids should first have an adenoidectomy and following the operation the radium can be given. It is a good idea to give the first radium treatment at the time of the adenoidectomy while the patient is asleep. I have an audiometer on order and when it comes an audiogram will be run on the children and the older patients both before and after the radium treatments."

Dr. Hundley: "In that type of applicator, how long does the applicator remain active?"

Dr. Smith: "Sixteen hundred years! By the way, that little application costs \$1,400, if you are interested. The Army had a bunch of them, but for some reason they won't let them go."

Dr. Hames (X-ray man): "I would caution you that if you have camera film or X-ray film in your office, regardless of how well you think this may be protected, you will expose all of your film within ten or fifteen feet distance if the radium remains there any length of time, if it is not protected by six inches of lead. Remember, if you do have an X-ray machine and you use film and begin to find fog, it is coming from your radium. 50 mgs. is a lot of radium. It is also well to guard your women personnel. No one should be closer than twenty feet to the radium regardless of how you have it protected."

Dr. Cook: "Now, does anyone else have anything to say. Thank you, Dr. Smith, for the paper. This report will be published and available for the lay-doctors?"

Dr. Smith: "Yes."

OBITUARY

JAMES PINKNEY CLEMENS, age 59, Stephens, died August 5th. Born near Bearden May 25, 1886, he attended Memphis Hospital Medical College and had practiced at Fulton, Camden and Mount Holly before locating at Stephens in 1939. He was a past-president of the Ouachita County Medical Society, a member of the Arkansas Medical Society and the Southern Medical Association, a member of the First Baptist Church of Stephens and a veteran of World War I. Surviving relatives are his wife, a son and two daughters.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

ALL of communicable disease begins with notification that the disease is present in a certain person at a given address. Verification of the diagnosis may be needed. Search for contacts must be prompt and complete. Each person capable of infecting others must be so controlled as to be no hazard to the community. In tuberculosis patients, this is accomplished preferably by admission to a tuberculosis hospital. Finally, since tuberculosis is a silent and insidious invader, reliance upon complaint of illness by the patient or diagnosis without X-ray of the chest cannot longer be tolerated.

WHAT PUBLIC HEALTH EXPECTS OF THE PRIVATE PHYSICIAN

It is probable that less than half of the active cases of tuberculosis have been known to the authorities at any time in the past thirty years or are today so known. A recent report of the Minnesota State Board of Health states, "In 1910 there were more than three times as many deaths from tuberculosis as there were reported cases. Tuberculosis is a reportable disease, but it has never been adequately reported."

Thirteen states in 1944 showed a ratio of more than three cases of tuberculosis reported for each death from this disease; within the same year Wisconsin leading with 3.70 cases per death. Yet evidence is abundant that probably between seven and ten cases per annual death from tuberculosis could be discovered and reported if all resources of medicine were used to full advantage.

The citizen may well ask why! Is a requirement of the Board of Health, having the force and effect of a law, to be disregarded with impunity? May I respond to the title of my discussion by saying that the humblest expectation of public health is that physicians recognize tuberculosis prior to the patient's death and report every infected person receiving medical care, whether or not such patients are discharging tubercle bacilli.

Until the practicing physician reports all cases

Editorial, Journal of the American Medical Association, February 2, 1946.

What Public Health Expects of the Private Physician, Haven Emerson, M.D. Minnesota Medicine, January, 1946.

of tuberculosis whether open or closed, positive or negative sputum, to the Division of Health at once on making provisional or suspected diagnosis we of the public health workers in official and voluntary agencies cannot give the community, the family, the fellow workmen, a protection to which they are entitled.

The physician in private practice is not only the sole representative of society licensed to deal responsibly before the law with life and death, but he is the medical conscience of the community. Upon his precise, prompt, wholehearted cooperation, the structure of modern public health depends. If in a mistaken spirit of economic self-protection he opposes publicly adopted policies of disease prevention and control within the framework of sanitary law, he tends to undermine his professional prestige and provides ammunition for those who would challenge the present system of medical practice. Some physicians and even specialists in tuberculosis consider that apparently healed so-called reinfection type tuberculosis is of no concern to public authority and they accept no obligation to report such patients. This is a practice that interferes with both epidemiological and public health services indispensable to the proper functioning of a control system.

Among the factors leading to delay in the reporting of cases of tuberculosis is the physician's inclination to spare the feelings of patient and family by not declaring the diagnosis and then by attempting to care for the patient at home as long as the family pays for his services. I am not at the moment concerned with the ethical weakness of the physician's position in such cases,

but solely with the effect upon the origin and spread of the infection in the community.

Home care of the tuberculous is of course possible but except under relatively rare conditions whether for the well-to-do or for the wage-earner, it is a distinctly second-best choice from the point of view of therapy and permits almost inevitable transmission of infection to household contacts. When we recall the high probability of infection of nurses under even rigid hospital discipline and with excellent equipment and management in sanatoriums, we cannot doubt the higher probability of such infection in home care of the tuberculous.

It is well to remind ourselves that the progress in control of tuberculosis has been in spite of incomplete and delayed reporting, in spite of the insidious and silent nature of early pulmonary disease and in spite of the lack of any specific resources for creating immunity or for cure in the chemotherapeutic sense.

We know so much we do not use that there is no excuse for discouragement. The question is one of relative speeds or progress, always with the hope that within our lifetime, our offspring will escape wholly what we know has decimated our predecessors and cruelly handicapped our contemporaries. When my grandparents made their home in New York City in 1838 the death rate from tuberculosis was not less than 300. Our grandchildren are living in the same city where a rate of 45 is current today. We can guarantee freedom of the succeeding generations from tuberculosis if we undertake two programs—one of discovery of pulmonary tuberculous disease and the other of isolation or adequate supervision of persons discharging the tubercle bacillus.

What the public health expects of the private physician is no more and no less than it requires of every other citizen, that is prompt compliance with the law. Popular opinion and medical tradition look to the medical profession with confi-

dence to give accurate diagnosis, humane treatment to the sick and prevent the spread of communicable disease from the sick to the well. The medical profession has exercised the disciplines of education and of ethics among its members. Any failures of standards will be best corrected by the organized local and state medical societies.

King Edward VII of England, when told that tuberculosis was a preventable disease, asked why it had not been prevented. It can be prevented in our time if we use our present resources.

IS TUBERCULOSIS FULLY REPORTED?

The United States Public Health Service has released statistics on the number of cases of tuberculosis reported in relation to the number of deaths by states. The wide variations between states implies either that tuberculosis is much more frequent in some states than in others or that the thoroughness of tuberculosis case reporting varies widely. The evidence suggests that it is the recording of cases of tuberculosis in many parts of this country that is incomplete. Unless this deficiency can be remedied it is almost impossible to evaluate the tuberculosis problem in the United States. Physicians are responsible for reporting all cases of tuberculosis to their local health departments and should see to it that this obligation is fulfilled.

COMING MEDICAL MEETINGS

Kansas City Southwest Clinical Society, Kansas City, October 7-10th.

International College of Surgeons, Detroit, October 21-23rd.

Oklahoma City Clinical Society, Oklahoma City, October 28-31st.

Arkansas Medical Society, Little Rock, April 17-19th, 1947.

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EDITORIAL

MEDICAL CARE PLAN FOR VETERANS

The Committee on Medical Care for Veterans
is hopeful that arrangements will be satisfac-
torily concluded with the Veterans Adminis-
tration to place into effect the out-patient care plan
in the state within the next thirty days. A meet-
ing scheduled for August 22nd with representa-
tives of the Veterans Administration should clear
up details of procedure and operation and, upon
formal approval, the plan should be in operation
shortly thereafter. To date, arrangements have
not been made for hospitalization of veterans
in Arkansas hospitals but hospital authorities are
working to conclude a satisfactory plan. It is
contemplated that the plan as initially adopted
in Arkansas will provide only for physical ex-
aminations and specialist examinations of vet-
erans for compensation purposes and out-patient
care for service-connected disabilities. Upon re-
ceipt of formal approval, full details of the
plan will be furnished each member.

To date, a considerable number of the mem-
bers have failed to complete and return the form
indicating their desire to participate in the plan
as adopted. It is most important that each mem-

ber who wishes to work under the plan, complete
and return the form to the office of the state
secretary, as only those physicians who have
returned the form signifying their desire to en-
gage in the provision of professional services to
veterans, will be designated by the Veterans
Administration. Members who have misplaced
the form sent them, are asked to make request
of the state secretary for a duplicate. It is hoped
that all members who wish to participate in the
plan will make known their desire immediately.

THE ARKANSAS STATE CANCER
COMMISSION

Because misunderstanding and lack of infor-
mation is noted over the functions of the state
cancer commission, The Journal briefly calls at-
tention to the provisions of the legislative act
under which this commission operates.

The State of Arkansas has appropriated the
sum of \$25,000 per year to be expended by the
commission in the provision of hospital and
domiciliary care to indigent patients suffering
with cancer. No provision is made for the pay-
ment of medical, surgical or other professional
fees. Authority for hospitalization or domiciliary
care for a patient, certified as unable to pay
such costs by his attending physician, may be
obtained upon application to the office of the
secretary of the commission, Dr. Carl A. Rosen-
baum, 626 Donaghey Building, Little Rock. No
other certification of need is required than that
of the attending physician. The attending physi-
cian should arrange for hospitalization and for
the professional care of his patient with the hos-
pital and physician of his choice. Requests for
additional information will be answered by the
secretary of the commission.

EDITORIAL COMMENT

MEETING OF THE UNIVERSITY OF ARKANSAS
SCHOOL OF MEDICINE ALUMNI

Graduates of the University of Arkansas School
of Medicine are requested to meet at the Al-
bert Pike Hotel, Little Rock, for a seven o'clock
dinner meeting, November 8th. The meeting
is called for reorganization of the Alumni As-
sociation and is being held the evening prior to
the Arkansas-Rice football game. All graduates
of the School of Medicine are urged to attend.

RANDOM THOTS OF THE SECRETARY

July 18th. Arriving Conway this noon to become more
intimately acquainted with Conway Memorial Hospital
than was our fortune during the war days, partaking of

hospital food as never was before, and then seeing our part of 82 patients who attend the diagnostic cancer clinic, Hames, Archer, Frazier, Dunaway and others making this a light load. On to Little Rock with the Hames and to dinner with the committee on medical care of veterans and a discussion of this project until time to once again board the Rocket for Booneville.

July 22nd. Tonight Melton comprehensively discusses regional enteritis at staff meeting and it is obvious that we are facing some intense diagnostic problems in our chosen field in the days just ahead.

July 23rd. Tonight to dinner, where Admiral Boone tells of the survey the Navy is conducting in the coal-mining area of this state and Oklahoma, there being other dignitaries present, exclusive of the Medal-of-Honor wearers, the admiral and his aide, such as Ross of the Arkansas State Board of Health and Matthews, Oklahoma's Health Commissioner, but none of the physicians from the coal-mining areas of western Arkansas despite urgent invitations.

July 24th. Conducting a navy admiral on a local hospital inspection trip this afternoon, a new experience, and one which should have, in all justice, fallen to Krock and Amis, who stood navy inspections interminably, with conditions reversed, in the days of war.

July 25th. Continuing his avocation of public relations counsel for Johnson County peach growers, Seigel demonstrates in a most practical and appreciated manner the excellence of this famed fruit by a basket delivered to our door.

July 29th. Before an enthusiastic audience, Coca-Cola salutes Ralph Crigler as a "Big Little American," a fine tribute to a fine fellow.

Tonight to hear the Navy epidemiologist blithely speak of Cairo, Capetown, Istanbul and Calcutta as we speak of Alma, Ozark, Paris and Booneville, but amazed greatly as he discusses medical knowledge which begins at the fringe of our accumulated store.

July 31st. With Crigler to support Goldstein as he ably reports on the activities of organized medicine at the San Francisco session of the American Medical Association, giving him credit for comprehensive lay explanation and for a justified tribute to the abilities of men rather than drugs and methods in present-day miracles of treatment.

August 1st. By plane to Little Rock and in session with the Arkansas State Cancer Commission, luncheon with Rosenbaum and Hames in the Lafayette which boasts a new chef, by plane home and to the work of the day for three hours plus and back again by air to meet with Euclid Smith's busy committee on medical education and hospitals at the Albert Pike and rushing away to again ride the Rocket to Booneville, completing two round trips to Little Rock in one day, a feat we had never accomplished.

August 8th. In most pleasant surroundings with Hoyt Allen host, the committee on scientific work outlines the 1947 program this evening at Little Rock's Country Club from which we hasten to catch the Rocket homeward, thanking the Dixie Cab Company who have brought Little Rock a much-needed taxi service.

August 12th. After a comfortable night atop Mount Gayler, we take the early morning train back to the chores of the day, reminding us of the summers 1933, 1934 and 1935 when we spent the nights at Fayetteville and commuted by rail there and back each day, Fayetteville's cool nights compensating for all this travel.

PERSONALS AND NEWS ITEMS

Dr. and Mrs. Ellery C. Gay, Little Rock, spent an August vacation in Colorado.

Dr. and Mrs. Jos. H. Sanderlin, Little Rock, spent an August vacation at Rockaway Beach, Missouri.

H. Fay H. Jones, Little Rock, attended the American Urological Association in Cincinnati during July.

Hoyt R. Allen, Little Rock, has been re-elected treasurer of the American Proctological Society.

James L. Pickens has opened an office for the practice of eye, ear, nose and throat at Rogers.

Norman Peacock has been elected a director of the Ashdown Rotary Club.

R. H. Whitehead, Jr., has been elected a director of the DeWitt Lions Club.

F. J. Scully, Hot Springs National Park, won first prize in the American Medical Association's Literary Guild for his essay, "The Flora of Hot Springs National Park."

Ralph E. Crigler, Fort Smith, was subject of a nation-wide radio salute as a "Big Little American" by the Coca-Cola Company July 29th.

Dr. and Mrs. Hugh Johnson, Fort Smith, spent a recent vacation in Colorado.

Drs. Murphey and Louise Henry, Fort Smith, recently took special work in Chicago.

A. C. Watson, Jr., has been released from military service and has returned to Little Rock.

D. W. Goldstein addressed the Fort Smith Rotary Club July 31st on the "1947 Session of the American Medical Association."

Jack M. Sheppard has moved from Hampton to El Dorado.

"Infectious Mononucleosis: An Analysis of 26 Clinical and 340 Subclinical Cases," by Chas. H. Lutterloh, Hot Springs National Park, with Jean Pilot, appeared in the December, 1945, issue of the American Journal of Medical Sciences. "Unusual Pigmentation Developing After

Prolonged Suppressive Therapy with Quinacrine Hydrochloride," by Chas. H. Lutterloh, with Paul L. Shallenberger, appeared in the April, 1946, issue of Archives of Dermatology and Syphilology.

S. J. Estes is now associated with Carl A. Rosenbaum at Little Rock.

C. P. Arnold, who has been released from military service, is associated with A. S. Buchanan at Prescott.

Capt. J. O. Porter, formerly of Van Buren, is now stationed at Atlantic Highlands, New Jersey.

D. L. Mask has moved from Bearden to Crossett.

R. L. Armstrong has been elected to the Stamps post, American Legion.

J. B. Elders has been elected surgeon of the Walnut Ridge post, American Legion.

Dr. and Mrs. W. F. Rose, Fort Smith, spent a recent vacation in California.

H. B. Thompson, Fort Smith, spent an August vacation in Minnesota.

Virgil Payne, Pine Bluff, spent a recent vacation in Ontario.

A. R. Sparks, Little Rock, attended the recent meeting of the Tri-State Association for Crippled in Memphis.

MARRIED—On August 14th, at Baldwin, Pennsylvania, O. C. Melson, Little Rock, and Miss Gwendolyn Henry, of Carnegie, Pennsylvania.

PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro August 1st. Drs. W. E. Berry and Paul Stroud discussed "Caudal Anesthesia" and the Bauer and Black motion picture, "Management of Wounds of Violence," was presented.

J. H. McCurry, Secretary.

BOOK REVIEWS

"Pneumoperitoneum Treatment," by Andrew Ladislaus Banyai, M.D., F.A.C.P., F.C.C.P. The C. V. Mosby Company, St. Louis. 1946.

This is a well-prepared, well-written discussion of the basic principles of pneumoperitoneum and its application in treating tuberculosis. Treatment of tuberculosis other than pulmonary is considered along with several non-tuberculous diseases. The author is to be commended for his careful work. Attention is given to anatomic and physiologic details. The bibliography is especially noteworthy. Dr. Banyai considers pneumoperitoneum a worthwhile adjunct in the collapse therapy of tuberculosis, but there is considerable doubt in some quarters as to the value of this form of treatment. "Pneumoperitoneum Treatment" is not a book for the general practitioner, but will be of interest to the specialist.

Penicillin and Other Antibiotic Agents, by Wallace E. Herrell, M.D., M.S., F.A.C.P., Assistant Professor of Medicine, the Mayo Foundation, University of Minnesota; Consultant in Medicine, Mayo Clinic, Rochester, Minnesota. 348 pages with 45 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$5.00.

In this book the author presents clinical and experimental studies of penicillin, a book which the practicing physician finds of utmost importance in determining the uses and limitations of the drug.

Facial Prosthesis, by Arthur H. Bulbulian, M.S., D.D.S., F.A.C.D., Director, Museum of Hygiene and Medicine, The Mayo Foundation, Rochester, Minn. 241 pages with 202 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price 5.00.

This is an excellent technical manual on facial prosthesis. A brief historical review gives the background for a discussion of the prerequisites of a successful facial restoration, which includes natural appearance, comfortable retention and durability. An extensive table showing an evaluation of the essential qualities of the principal materials that have been used for prosthetic restorations about the face shows that vulcanized latex compound possesses the greater degree of usefulness, but research on the use of plasticized plastics may supplant the latex.

Excellent detail is given of the laboratory facilities needed, and also of the methods of taking impressions.

The next three chapters show and discuss the problem of reconstruction of nose, ear, and orbit with the eye, with fine illustrations of all phases of the work.

The last portion of the volume is a descriptive brief of specific cases with the means of accomplishing a good end result, and photographs to show the finished product.

This is an excellent guide for the laboratory trained man and an adjunct for the plastic surgeon.

A Textbook of Surgery by American Authors: Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Fourth Edition, Revised and Reset. 1,548 pages with 1,483 illustrations on 762 figures. Philadelphia and London: W. B. Saunders Company, 1945. Price \$10.00.

This necessary text has been completely revised and a new format employed, reducing the bulk of the book without loss of content. It is the most comprehensive presentation of surgical principles to be found in one volume and its appreciation is seen in its appearance in fourth edition.

Synopsis of Pathology, by W. A. D. Anderson, M.D., Professor of Pathology and Bacteriology, Marquette University School of Medicine. Pp. 741 with 237 illustra-

tions and 15 color plates. Price \$6.50. Saint Louis: C. V. Mosby Company, 1946.

Concisely and accurately presenting pathology in a factual manner, this text is valuable as a reference work for the studious general physician. The author's experience has been drawn on to provide authority of statement in readable form.

Diseases of the Skin—For Practitioners and Students, by George Clinton Andrews, A.B., M.D., Associate Clinical Professor of Dermatology, College of P. and S., Columbia U.; Chief of Clinic, Dept. Dermatology, Vanderbilt Clinic; Chief of Dermatology Clinic, Roosevelt Hosp.; Attending Dermatologist to Presbyterian Hosp. and Roosevelt Hosp.; Consulting Dermatologist and Syphilologist to Tarrytown Hosp.; Grasslands Hosp., Valhalla, St. Johns Hosp., Yonkers, Greenwich Hosp. and the Beekman-Downtown Hosp.; Fellow of the American Medical Association, of the American College Physicians, and the New York Academy of Medicine; Member of the American Dermatologist Association, the American Radium Society, the New York Dermatological Society, New York Roentgen Society, and the Manhattan Dermatological Society; Member of the Deutsche Dermatologische Gesellschaft and Corresponding Member of Societe Francaise de Dermatologie et de Syphiligraphie. Third Edition. 937 pages with 971 illustrations. Philadelphia and London: W. B. Saunders Company, 1946. Price \$10.00.

The third edition of *Diseases of the Skin* by Andrews is clearly and tersely written. The author has given an excellent description of the clinical and histological pictures of the various diseases without being verbose. The picturization of the macroscopic lesions is especially good in that it depicts the more common conditions rather than the strange and rarely seen ones.

The author has instituted new groupings of diseases which may be a step towards clarification of some of the present day argument. He has drawn much of the information used from his own large experience in this field and has quite generously used and given credit, where due, the works of his contemporaries.

I am particularly impressed with the chapter, Miscellaneous Pyogenic Infections, because it contains many of the lesions seen in every day practice. The treatment here, as all through the book, carries many or all of the newer therapeutic agents as brought out in the recent conflict.

I think this is a good book for both the student and the practitioner to have at hand.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association

for 1945. Cloth. Price, postpaid, \$1.00; Pp. 122. Chicago: American Medical Association, 1946.

Originally intended chiefly as a repository of its reports on rejection of preparations found unacceptable for inclusion in New and Nonofficial Remedies or of status reports on products whose therapeutic value has not yet been established, this volume in recent years has been composed mainly of reports giving general information to the physician on the status of various therapeutic agents and therapeutic procedures. Most of these reports have previously been published in *The Journal A.M.A.* The reports in the present volume emphasize the educational nature of the Council's work and bear witness to its leadership in the consideration of current therapeutic problems.

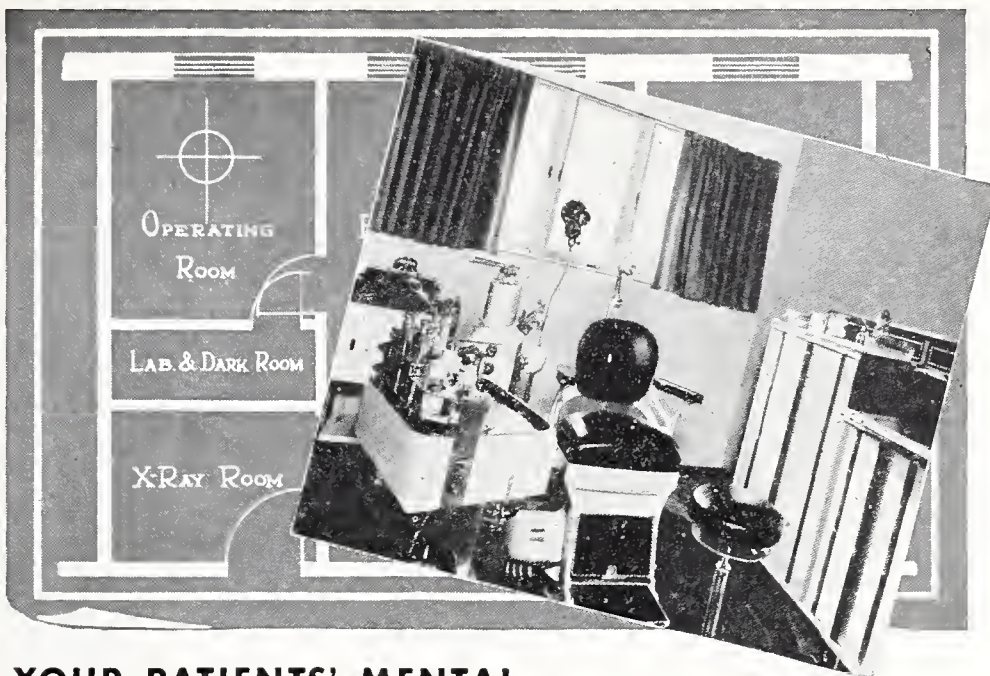
The report "Dermatophytosis: Treatment and Prophylaxis," gives a concise estimate of progress in this field and sets up useful standards for the evaluation of fungicidal preparations. The report on "Dangers from the External Use of Sulfonamides," obviously stems from wartime experience with these preparations and issues a warning against over-the-counter sales. The report "Status of Poison Ivy Extracts" emphasizes the fact that these preparations are to be used in prevention rather than treatment. The report on Acne Bacillus Vaccine points out that this preparation, in the opinion of most investigators, fails in most cases clinically to arrest or control acne vulgaris. In the report, "The Status of Passive Immunization and Treatment in Pertussis by the Use of Human Hyperimmune Serum," prepared by Dr. Harriet M. Felton and sponsored by the Council, the status of these preparations was definitely outlined just prior to the acceptance by the Council of a number of commercial preparations.

This volume as well as preceding Annual Reprints are of interest not only to physicians but also to pharmacists, chemists and pharmaceutical manufacturers, in fact to all who are interested in the progress of drug therapy.

New and Nonofficial Remedies, 1946, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1946. Cloth. Price, postpaid, \$1.50. Pp. 770. Chicago: American Medical Association, 1946.

New and Nonofficial Remedies is the book in which are listed and described the medicinal preparations which the Council on Pharmacy and Chemistry has found acceptable, under its rules, for the use of physicians. To have a product accepted, the manufacturer must declare its composition, give adequate proof of its therapeutic value and market it with claims which have been found valid by the Council. The present volume represents a

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cumulative epitome of the Council's work since its foundation in 1905.

Accepted preparations are grouped in twenty-four classifications ranging from Allergenic Preparations to Vitamins. Ordinarily, an inclusive general article precedes the description of the various products. The monograph for the products set forth the actions, uses and dosage and usually a set of tests and standards. As its name implies, the book is intended to describe nonofficial preparations, that is preparations which are not included in such official publications as the Pharmacopeia and the National Formulary. However, some official articles are listed and described, these being in general those for which the Council feels the practicing physician needs concise and authoritative information. In the preface of the present volume, the Council lists some thirty-five official drugs ranging from acetylsalicylic acid to Strophanthin, which the Council feels it no longer necessary to consider for inclusion in the book. However, in most cases, a brief monograph on actions, uses and dosage gives information useful to the physician and for the control and advertising of marketed preparations.

Examination of the volume reveals that there have been no extensive or radical revisions of the general articles representing the twenty-four chapter heads under which preparations are classified. A few revisions of separate monographs may be mentioned: under Chaulmoogra Derivatives, the recommended use of Chaulmoogra Oil is limited to sarcoidosis; the dosage statement for Quinacrine Hydrochloride has been notably expanded to reflect the wartime experience with the drug. The radically revised monograph on Amphetamine is in harmony with the recent Council report on the use of this drug. Minor revisions of the chapter on Contraceptives are noted, and one marks the appearance of many additional products. The monograph on the Vitamin B Complex now mentions synthetic folic acid, recently made available for investigational use; but no accepted preparations are listed.

There appear to be no spectacularly new accepted preparations. Perhaps the most noteworthy is the casein hydrolysate, Amigen, acceptance of which will no doubt be followed by that of many more preparations representing the field of amino acid therapy.

Clinical Traumatic Surgery, by John J. Moorhead, B.S., M.D., D.Sc., F.A.C.S., (D.S.M.), formerly Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, and Executive Officer, Department of Traumatic Surgery, Post-Graduate Hospital and Reconstruction Hospital Unit; Diplomate in Surgery; Colonel, Medical Corps (A.U.S.) Inac. Res.; Medical Director, New York City Transit System. Consulting Surgeon, Post-Graduate Hospital, U. S. Public Health Service, All Souls (Morristown), Anne May Memorial (Spring Lake), Caledonian, Harlem, Mary Immaculate (Jamaica), Mother Cabrini, New Rochelle, Nyack, Rockland State, St. Francis (Port Jervis), and Yonkers General Hospitals. 747 pages with 500 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$10.00.

The author writes with exceptional authority on the subject of traumatic surgery and this book emphasizes treatment which is both practical and generally available. The arrangement by particular areas of the body is of special value and several hundred illustrations are well chosen to clarify the text. This is a most valuable book to both the general practitioner, who usually sees the injured patient first, as well as to the specialist in the field of traumatic surgery.

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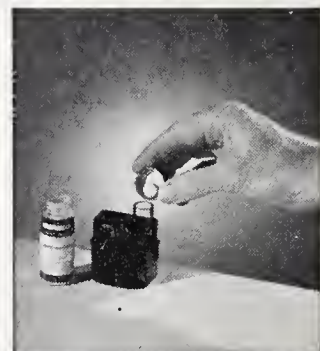
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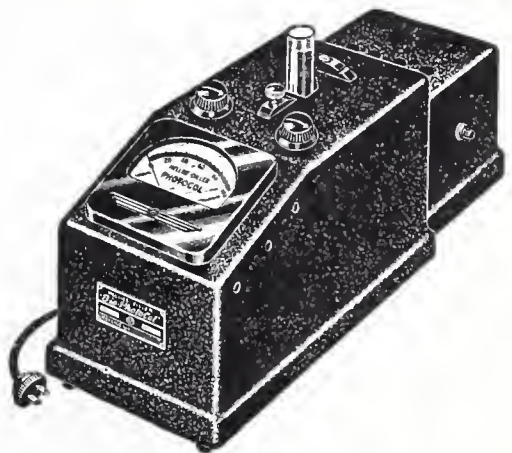
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WHAT IS WRONG WITH THE DYSPEPTIC WHOSE FINDINGS ARE ALL NEGATIVE? *†

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The daily experience of the gastro-enterologist is that in the case of most of the persons who come complaining of indigestion he cannot find any organic disease to account for the indigestion or abdominal distress. Where I work the roentgenologists are constantly reporting negative findings, and I expect them to do so; I rarely question their reports because I know how efficient they are in detecting organic disease in the stomach, bowel and gallbladder. Incidentally, I am glad that when they see no organic disease they report briefly "normal digestive tract" instead of supplying me with a number of placebos of diagnosis such as ptosis, spastic colitis, adhesions, a "slowly-emptying gallbladder," or "probable chronic appendicitis" (as evidenced by the fact that the appendix pointed up or pointed down or filled or did not fill).

Certainly, in a high percentage of the cases of indigestion which he studies the gastro-enterologist must be prepared to make a diagnosis of a functional ailment. He will then say to the patient that his or her trouble is doubtless real, that there is no question about the fact that distress is being experienced, but it is not due to anything in the abdomen which at an operation the surgeon could find and cut out. That is the essential point.

The Need for Diagnosing the Exact Type of Functional Trouble Present.—Obviously, the physician does a praiseworthy thing when in the absence of organic disease in the abdomen he makes the diagnosis of a functional type of distress; but he cannot stop there. He must go on to try to find out what type of functional

disease is present, and what the disturbing mechanism is. The routine giving of phenobarbital may be good treatment for some persons with nervous indigestion due to jitteriness, but obviously it is not good treatment for many others. Let us say that one woman's nervous indigestion is due to the fact that she is worn out with the care of a defective child; another's nausea and heartburn are due to her smoking too much; another's "gas" is produced by a failing heart; another's is due to her allergic reaction to certain foods, and another's trouble is practically all due to her constipation. Obviously, such persons need different types of treatment, and they will not get the right type unless the physician takes the time to go thoroughly into the story of the illness. He must not expect, as he often does, to have the whole diagnosis made for him by his laboratory technician, his roentgenologist, or some expert peerer into one of the several orifices of the body.

Now, what are the common causes of functional indigestion? In the short time available I can review briefly only the commoner ones.

The Nervous and the Relatives of the Insane.—In most cases of functional indigestion, the patient is by nature nervous, hypersensitive and overirritable. Often he or she is a pathologic worrier or fussbudget or perfectionist. Sometimes the trouble has been brought on by extra strain or overwork or long hours, but oftener, I think, it is due to a poor nervous inheritance. Many of the most nervous or psychopathic or poorly adjusted of my patients are what I call "relatives of the insane." I think this classifies them well, and explains the origin of their troubles.

To illustrate, recently a man came in and said, "As soon as I eat I go all to pieces; I get so nervous and jittery that I could jump out of my skin; the sweat runs off of me, waves of goose-flesh run up and down me, and I feel as if I might faint; as a result I am a nervous wreck for an hour or two after every meal." I asked immediately, "Have you any relatives who were nervous wrecks and who, at times, had to take refuge

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in a sanitarium?" "Oh, yes," he said, "four of my immediate family have been mentally upset." There, I think, was the answer to all his troubles; his nerves were playing tricks with him, and what he had was an equivalent of the insanity which appeared in several relatives. In them the defect may have been mainly in the cerebrum while in him it was mainly in some center for the autonomic nerves. Those almost unnoticed postprandial reflexes which take place in normal persons were in him so greatly exaggerated as to become distressing.

As you know, many of the persons who complain of belching have not any indigestion or true flatulence and therefore cannot be helped with any diet. They are only air-swallowers, and they swallow air because they are jittery, mentally upset, frightened, or worried. Other persons of this type, when they become panicky, perhaps with fear of losing their mind, get a short attack of diarrhea. Others bloat badly, but not with gas, as can be seen by making a roentgenogram of the abdomen. Evidently the phenomenon is produced by some disturbance in the innervation of the muscles surrounding the abdominal cavity.

The Mildly Insane.—Many gastro-enterologists would be surprised if they were to learn how many of the patients who are going through the office each month have a mild form of manic-depressive insanity. They are the persons who, when they feel well, are too active and energetic so that the mind races; they then work too hard and for too long hours; they have no self-discipline and they like to turn night into day. Perhaps, partly as a result of this, they eventually get so tired that they cannot do much; they get depressed, and have to hibernate for months or for a year or two.

Commonly, when a bit depressed, they complain bitterly of morning fatigue, loss of "pep," a feeling of intoxication and aches all over. They go to the gastro-enterologist because they and often their physicians are sure that the liver or the colon must be at fault.

The gastro-enterologist sees also those sullen, shy, reserved and somewhat schizophrenic persons who are hard to get acquainted with. He sees also the hypochondriacs who cannot be reassured or cheered up: who feel sure they have cancer or heart disease or terrible poisoning by toxins being absorbed from the colon; he sees the women who get terribly tense and unreason-

able and "impossible to live with" for a week before menstruation, and he sees the women who go all to pieces after the menopause. The essential point in most of these cases is that the trouble is nearer a psychosis than an ordinary neurosis or fatigue state or "chronic nervous exhaustion."

Nervous Breakdowns.—Every gastro-enterologist should be watching out daily for persons with a "nervous breakdown." I, who am looked on as a gastro-enterologist, have to spend perhaps a third of each day taking care of persons who have broken down nervously. It is a sad fact that most of them keep going from one consultant to another telling their story in such a way that it does not seem to occur to anyone that the essential feature of their disease is not indigestion or abdominal discomfort but rather a disorganization of their cerebral functions so great that they are unable to work much if at all. Usually the doctor's assistant who takes the history does not think to ask a few highly important questions such as, "Are you working?" Often when I ask a healthy looking man how long it is since he last worked he will say that he has not done a thing for several years. When I ask, "Why not?" he will say that it is because he cannot stand being around people. If he should try to sell some goods or interview someone he would soon get nervous and jittery, the sweat would break out on him, and he would have to excuse himself and go and lie down. A man with this type of breakdown will often admit that at times he is so overemotional that he cries. Usually he is unable to sleep restfully.

One of the best signs of a nervous breakdown is the fact that the patient cannot read much. Ask "Why not?" and he will say that in the first place, he is not much interested, and in the second, his eyes tire quickly, the lines run together and he forgets a paragraph before he has finished reading it. Another important symptom is an inability to sit through a movie; the patient soon gets tense and restless and has to leave. A woman, if she goes to church, will sit in the last pew at the back so that she can slip out if she gets too tense or tired.

Often, after a consultant has elicited these symptoms and has pointed out their great significance to his assistant, he will be disturbed to see that the young man is not impressed; because of his training he continues to feel, as does the patient, that all the troubles must be arising in the digestive tract. Great significance will be

put on the report of the roentgenologist that there was perhaps a "duodenal ulcer" or a "slowly-emptying gallbladder" or adhesions or diverticulosis of the colon. Because in college the young assistant was not trained to think of the brain as a common site of disease, it does not occur to him that no disease of the abdominal organs, with the possible exception of carcinoma of the pancreas, could so demoralize a man's brain that he cannot read a few paragraphs in the daily paper. Even cancer of the stomach does not do that until perhaps the patient has been pulled down by pain, undernutrition and loss of sleep.

When the physician has decided that the patient has a nervous breakdown the next question is, How did he get it? Did he overwork enough to bring it on, or did he get it mainly because he inherited a poor nervous system? There is one question the answer to which can throw great light on this problem and that is: Does the fatigue come in the morning or in the late afternoon? If it is present in the morning on waking it generally means that the patient inherited a poor nervous system, whereas if it comes in the afternoon it is commonly due to overwork.

Small Strokes.—When an older person suddenly breaks down nervously and becomes physically changed the physician should always wonder if he or she has had a small stroke. Such strokes are common in persons past fifty years of age. They are due usually to thrombosis in a small intracranial artery, and the victim does not necessarily have to have hypertension. A strong point in the history often is that the breakdown came suddenly, usually on the morning of a certain day. Highly important is the fact, when it can be elicited, that a person who was previously active, efficient, friendly and optimistic suddenly became slowed-up, forgetful, irritable, unable to work and perhaps without interest or joy in life, family and friends. Again, the physician must recognize the fact that no disease in the abdomen could so suddenly change a person's whole personality. Sometimes there is a marked loss in memory or a marked change in the handwriting.

Usually, when stricken, the patient consults a gastro-enterologist. One reason is that when the small artery in the brain became plugged a sort of storm went down the vagus nerves to produce vomiting or uncomfortable sensations in the abdomen; the patient was thought to have "acute indigestion," whatever that is. Another reason is that there was dizziness or vertigo which was

thought to be due to disease of the liver, and another reason is that after the little stroke, the patient's weight fell off markedly.

The wise old clinician will suspect cerebral arteriosclerosis the minute he sees grease spots on the coat of a cultured man, and other signs indicating a loss of proper grooming and mental health. It is highly important in these cases that the correct diagnosis be made promptly, so that the prognosis will not be too optimistic. In most cases the prognosis as to a return of health is bad, and there is no known drug that will make the patient more comfortable.

Another usually unrecognized cause for a nervous breakdown with abdominal discomfort is an attack of encephalitis, not diagnosed when it came. I see many such cases a year in which attending gastro-enterologists could easily have made the correct diagnosis if only they had suspected a nervous breakdown, had noticed the lack of expression in the patient's face, had gotten the story of inability to work, and then the story of a preliminary illness with perhaps somnolence, severe headache, double vision and mental hebetude.

Constitutional Inadequacy.—One of the common diseases I see every week is constitutional inadequacy, or a frailness which, throughout a lifetime, will make it hard for the patient to stand up to the strains and stresses of life. Many of the affected persons are "relatives of the insane" and one cannot hope ever to give them a new, sturdy and uncomplaining nervous system. Most of them, and the world is full of them, complain of indigestion of some kind. The best thing I know to do for them is to help them, first, to understand their problem, and second, to learn to live within their means of strength.

The Sore Colon.—One of the commonest forms of nervous indigestion is associated with a bowel that is sore and "growly" much of the time. I say "bowel" because the trouble is not limited to the colon. In these cases the patient may from time to time pass considerable amounts of mucus in the stools and the roentgenologist will report spasticity of the descending colon. These people are likely to get into trouble when they go through any emotional storm, or when they eat some food to which they are allergically sensitive, or when they are coming down with a cold, or perhaps when they let themselves get too constipated or when they take too many laxatives or bulky foods.

These persons must be taught how best to live

with their colon because they will have it all their days. Fortunately they will never come to any bad end because of it. Many can be helped much by taking a daily enema of physiologic salt solution, while others need a dose of codeine before they go out to a party.

The Dyspeptic.—There are a large number of persons in this world who appear to have been born to be dyspeptics all their days, but just why, it is hard to say. Many of them have what I call "the small laboratory disease," which means that they get along fairly comfortably so long as they eat only small amounts of food. Just let them, however, overload the digestive tract and they get distress. Some of these persons may have a short bowel while others may have a flabby intestinal musculature or a poorly developed or atrophic gastro-intestinal mucosa. Others may, perhaps, have a pancreas or a liver which works inefficiently, while others may have had in childhood diphtheria or poliomyelitis or some other disease associated with a neurotoxin which destroyed some of Auerbach's plexus, and left the bowel overirritable or crampy, or inclined to allow gastric waves to run orad almost as easily as caudad, and thus to cause regurgitation, heartburn and several other types of digestive distress.

The Hypersensitive Digestive Tract.—There are many persons with nervous indigestion whose digestive tract is much too sensitive and reactive. One can easily recognize this type of tract by finding out that the minute food is put into the stomach there is a sudden cramping or bloating or a feeling as if the bowels were going to move. The fact that the distress comes quickly, and often after the drinking of a little water or "pop" shows that it cannot be due to a failure of digestion or to allergy. Probably the quick blowing up of a balloon in the stomach would have the same effect. Usually one finds this hypersensitive type of digestive tract in nervous hyperreactive persons who have markedly exaggerated knee jerks.

Indigestion Due to Poorly Cooked Food.—There are probably many persons with indigestion who get into trouble because their food is cooked badly or greasily. One thinks of the persons who have to eat in cheap restaurants or in homes kept by slatternly women. Many sensitive persons are disgusted and upset if the food is

served unattractively and in unpleasant or dirty surroundings. Some will get indigestion if they fear that the food they ate was spoiled or not of good quality, or in some way likely to disagree.

Persons Who Eat Too Fast or Too Much.—When a stout person complains of indigestion for which no organic cause can be found the physician should inquire if he is eating too much. Often he is and that is his trouble. Perhaps also he eats too fast. Some of the stout persons who complain of heartburn and foul flatus are inclined to gorge themselves until the digestive powers of even their strong stomach and bowel are overtaxed and overwhelmed. Then food is left to putrefy or ferment in the colon.

Indigestion Due to Eating Under Bad Circumstances.—Some irritable persons who complain of puzzling attacks of abdominal pain get into trouble because they eat while they are fighting with a spouse or while they are tense or fatigued, or still upset over some annoyance. A few can digest well only if they eat when alone; they get into trouble whenever they eat with others, and especially in a crowded restaurant. At the Mayo Clinic many patients make their diagnosis of this sort of trouble when they say, "You know, doctor, it is curious, but during the two weeks in which I have been here I have eaten everything and I have not had a bit of the old pain and indigestion that have been bothering me so constantly." The reason for this usually is that the patient has been at rest and has been eating while free from tension and annoyance. Many a time I have seen such a patient suddenly get a bad digestive upset, and then I have learned that it followed an unpleasant long distance telephone conversation with an abusive spouse or the receipt of a disturbing telegram.

Food Sensitiveness and Allergy.—Many of the persons suffering from indigestion, bloating, abdominal pain and much foul flatus, are allergically sensitive to one or more foods. Usually one should suspect that such food sensitiveness is at fault when the patient says that he knows that he must not drink milk, or eat eggs or some other food because it always poisons him. In such cases it is possible that there are other foods which the man has not yet learned to avoid. If the distress complained of is coming almost every day the best way for the patient to find if it is due to an offending food is to go

on an elimination diet. A simple one consists of nothing but lamb and rice, butter and sugar and canned pears, to be eaten for only two days. If it does not help in that time, it is not likely to do so later. If the patient's distress comes only once in a couple of weeks he should keep a record of unusually foods eaten before each upset. If the patient says that often he goes for two or three weeks without distress the chances are that his trouble is not due to food allergy; certainly, it is not due to the eating of any of the commonly used foods.

Heartburn.—A fairly common functional trouble is heartburn. When asked to show where his distress is the patient usually runs his hand up the lower half of the sternum. Many of these sufferers were born with a tendency to heartburn and they have it off and on for years. There are a number of exciting causes such as getting angry, or eating certain foods, or overeating, or smoking too much, or drinking certain liquors. Curiously, when heartburn appears in a patient with ulcer one can find that when he has hunger pain he has no heartburn and when he has heartburn he has no hunger pain.

Diarrhea.—In perhaps nine of ten cases of diarrhea I am unable to find any sign of organic disease in the digestive tract or of parasites in the stools. Many persons will admit that they have always had a tendency to have diarrhea under excitement, and many know that they are likely to suffer an attack of diarrhea whenever they get panicky over something. Most of them are highly nervous, overreactive persons. A few who have insane relatives get their diarrhea when it suddenly occurs to them that they too might go insane. Others are allergic to certain foods, particularly milk. A few, for one reason or another, are drinking far more water each day than they need, and that tends to make the stools too soft.

Rather characteristic of a functional type of diarrhea is the fact that it will last for only an hour or so, or for only a day or two. A very helpful point is that persons with functional diarrhea seldom have to get up at night to empty the bowel. A helpful laboratory test is the blood sedimentation rate. In almost every case of regional enteritis or chronic ulcerative colitis that I have seen the sedimentation rate has been more than 50 mm. in an hour, whereas in cases of apparently functional diarrhea it has been

less than 20 mm. Always it must be remembered that even when amebae have been found in the stools the diarrhea may all be due to a neurosis.

Tabagism.—I suspect that gastro-enterologists today commonly fail to make the diagnosis of tabagism. Ever so often I find myself unable to understand why a man is complaining of ill health, perhaps with heartburn, nausea, indigestion, abdominal distress, night pain, or loss of weight, until his wife tells me that she has noticed that his bad spells come whenever he gets so absorbed in some work that he smokes all day. Perhaps then he swears off tobacco and with this his symptoms disappear and he gains markedly in weight.

Regurgitation.—Many times a year I see a young woman who complains of "vomiting," but when I ask her, "Do you mean real vomiting or just the bringing up of mouthfuls of food?" she says, "Yes, that is what I mean." Especially when such regurgitation starts immediately or shortly after meals and especially when it is not associated with nausea I am sure I am dealing with a functional disease. In forty years I have never seen one of these patients cured by any form of operation.

Occasionally this disease is associated with anorexia nervosa and often there is abdominal pain which is relieved when food is brought up. In some cases I think there is a congenital tendency to the regurgitation, and in other cases the woman is psychopathic, unhappy, tired, or very nervous; often she is caught in some unfortunate situation which makes her unhappy. Men seldom complain of this trouble. Treatment must consist mainly of exhortations that the patient make an effort to hold down her food. An improvement in home conditions or the securing of rest may work a cure.

Gastritis.—Today gastroscopists are making the diagnosis of gastritis in many cases, but just what relation this diagnosis has to the symptoms complained of I seldom feel that I know. Under the circumstances I seldom ascribe a patient's troubles to gastritis. I am waiting for further knowledge.

Chronic Appendicitis.—Some may be asking, "How about chronic appendicitis?" In my experience this is a rare disease, and I rarely make the diagnosis. I dare to make it only when the patient, usually a young person, has had one or two attacks of abdominal pain which made the

attending physician suspect the presence of acute appendicitis. If these were followed by indigestion and poor health then I think the appendix should be removed. Then there can be hope of effecting a cure.

Adhesions.—Where I work we do not make the diagnosis of adhesions from one year's end to another unless we think there are some which are producing occasional attacks of partial intestinal obstruction. As Osler said, "Adhesions are the refuge of the diagnostically destitute."

Diverticulosis and Diverticulitis.—Diverticulosis of the colon is commonly met with in persons past forty years of age. In all but a few cases it is probably symptomless. Diverticulitis, or inflammation of a few of these little pouches, is a rare disease, so rare that I sometimes go two or three years without seeing a single case. I think it is wrong to blame diverticula for symptoms unless the patient has had chills and fever with some intestinal obstruction, a tender mass in the left lower quadrant of the abdomen and a typical roentgenologic picture of spasm in the last 6 cm. of the descending colon where it forms the first part of the sigmoid flexure.

Pseudochloecystitis.—Every year I see a number of nervous and dissatisfied women who complain of an ache or "misery" in the region of the liver. The fact that their distress is usually constant, day in and day out for several years, satisfies me that it is not due to cholecystitis. I think in most cases the distress is a psychosomatic nature, arising in the brain. Long experience has shown me that in these cases it is useless to remove the normally functioning gallbladder. In rare cases the distress is due to food allergy.

Pseudo-ulcer.—Many persons have a hunger-type of pain which may resemble that of ulcer so closely that the negative reports of roentgenologists have to be depended upon for the diagnosis. In other cases the atypical nature of the story can warn the gastro-enterologist that he is dealing with pseudo-ulcer. Commonly the pain is brought on by constipation, or by the eating of food to which the person is sensitive, or by an oncoming cold. The important thing to remember is that there is such a thing as pseudo-ulcer and hence, in the case of a person who has hunger pain, one must not blame one's roentgenologist if he refuses to make the diagnosis of ulcer.

Pseudo-appendicitis.—There are many persons

with an ache or a burning or a pain in the right lower quadrant of the abdomen who go on having trouble for years after the appendix has been removed. In many of these cases the distress is probably psychosomatic in origin while in others it is due to fibrositis or neuritis or an arthritis of the spine. In others I do not know what the cause is, but I am satisfied it is not located in the digestive tract.

Migraine.—Many of the women I see every week complaining of such things as fatigue, indigestion, dizziness, nausea, spells of vomiting and an inability to stand up to any strain have the habit of forgetting to tell their physicians that their upsets are commonly preceded by a headache. As a result, the diagnosis of migraine is usually missed, and this is a tragedy because if it were made it would throw great light on all of the woman's problems.

In most cases the physicians consulted could have made the diagnosis if they had only been trained to recognize the attractive, migrainous type of woman with her expressive eyes and mobile features, and her quickness of thought and movement. Then they would have drawn out the story of the headaches with the typical temperament: the great tendency to tenseness and fatigue, and the hypersensitiveness to light and sounds and smells.

I have rarely seen such a migrainous woman permanently helped by any operation on her digestive tract, but I have seen many of them almost cured through being taught to live with their handicap and to avoid fatigue, tension, excitement, worry and annoyance.

Constipation.—Many of the "dyspeptics" whom we physicians see each day are suffering primarily from constipation, and if only they would take a daily enema of warm physiologic salt solution they would be well. The diagnosis can be made by asking the patient if he or she feels like a new person for a few days after the bowels have been well cleaned out. Often in these cases the present-day treatment of constipation with bulk-producing substances does not work because, by the time the patient's bowels move, the colon is so full and there is so much back pressure up the small bowel that the patient is full of gas and greatly distressed.

Abdominal Distress or Pain Due to Arthritis, Fibrositis or Neuritis.—The gastro-enterologist is

consulted each week by a number of patients whose abdominal pain or distress is not arising in the digestive tract at all. This should be clear from the fact that it is no better or worse for eating or moving the bowels or expelling flatus. Actually the ache or distress is arising out in the abdominal wall, and is due to a fibrositis, or neuritis, or an arthritis about the spine. Usually, when asked, the patient will admit that he or she is subject to attacks of lumbago, wry neck, cricks, sacro-iliac disease, sciatica, or arthritic pain or stiffness in several joints of the body. Often one can show that the trouble is in the abdominal wall simply by lifting up a fold of skin and subcutaneous tissue, pinching it lightly and causing the patient to flinch or to cry out with distress. It is sad to think that this common disease is almost unknown to physicians today, and that as a result many futile abdominal operations are daily being performed throughout the land.

A Thought in Closing.—The excellence and wisdom of any specialist can perhaps best be judged by the number of his patients whom he turns away with the statement that they are mistaken, and their disease does not come within his field of interest. Several times a day the wise oculist will say, "Your eyes are excellent, it is only your brain that is tired and at fault"; the lung specialist will say, "You do not have tuberculosis, and your so-called fever is due to nervous tension," and the heart specialist will say, "Your air hunger and palpitation and missing beats are not due to a bad heart but to your nerves that are playing tricks with you." Similarly the wise gastro-enterologist will spend much of his day telling worried persons that their story is not that of any known organic disease of any part of the digestive tract; perhaps it is not even that of indigestion, but rather that of nervousness, constitutional frailness, or fibrositis.

Many of his diagnoses will have to be made not by exclusion but from a good history and an intimate knowledge of neuroses seen many times before. He will not put pressure on his roentgenologist to make all of his diagnoses for him, and best of all, sometimes when the roentgenologist has noted a poorly functioning gall-bladder or a deformed duodenal cap the wise physician will disregard these findings because he knows so well that the patient's symptoms are all due to a neurosis or a depression or a small stroke.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Ft. Smith

TREATMENT OF SUBACUTE BACTERIAL ENDOCARDITIS

"Early experiences with penicillin therapy of subacute bacterial endocarditis were discouraging, but as supplies of penicillin have increased and the larger doses of the drug have been used, the picture has changed dramatically. It can now be stated unequivocally that the great majority of patients who have streptococcal endocarditis can be cured with sufficiently intensive administration of penicillin. Of forty-nine patients treated at Presbyterian Hospital, forty-one are living and well with an average follow-up of eighteen months, and of the eight deaths four were due to causes other than uncontrolled infection.

With this change in the therapeutic outlook, the early diagnosis of the disease becomes highly important. One should suspect its presence in any patient with valvular heart disease who has unexplained fever for more than a week. Any of the usual stigmata including heart murmur, fever, embolic phenomena, splenomegaly and anemia may be absent in a given case, especially in the early stages of the disease, and the establishing of the correct diagnosis rests in the last analysis on the repeated finding of positive blood cultures. It is of the utmost importance that, whenever possible, the offending organism be recovered before therapy is started, for only with knowledge of the in vitro sensitivity of the strains to available antibiotics can a rational plan of treatment be formulated.

In approximately 95 per cent of cases subacute bacterial endocarditis is caused by streptococci of either the viridans or anhemolytic variety. The majority of these are susceptible to penicillin, but there is a wide strain variation in this characteristic. Fortunately, growth of 90 per cent of the strains recovered from patients with subacute bacterial endocarditis is inhibited in vitro

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by 0.1 unit of penicillin per cubic centimeter. For the remaining 10 per cent, however, up to 10 units per cubic centimeter or more may be required to inhibit growth. To date no correlation with serologically or biochemically distinguished types has been shown except that the enterococci or strains of streptococcus faecalis have proved uniformly highly resistant to penicillin. Development of penicillin resistance by nonhemolytic streptococci occurs very uncommonly even in patients who have repeated relapses.

In general, the correlation between in vitro sensitivity of the infecting organisms to penicillin and the clinical results has been surprisingly good. Strains inhibited by 0.1 unit per cubic centimeter or less have been easily eradicated in most instances. Those requiring up to 0.5 units have been more resistant clinically, and larger doses of the drug have been necessary in treating these infections. When the in vitro sensitivity of the strain is between 0.5 and 10 units, heroic doses are required, but success may be attained with intensive enough therapy. Occasional cases are encountered which prove resistant to treatment beyond what might be expected from the penicillin sensitivity of the organism in vitro. The explanation for this discrepancy is not entirely clear; the duration of the disease, valves involved and the general condition of the patient do not seem to have any bearing. Probably the size of the vegetations is important, but one has no way of estimating this factor except that many patients who have had resistant infection have failed to show the usual embolic phenomena and presumably the size of the vegetations has not been reduced by dislodgement. Loewe has described an organism which he calls "Streptococcus s.b.e." recovered in refractory cases of the disease which he feels is important in differentiating patients who will prove to require larger than usual doses of penicillin for cure of their infection. Not enough data have been published as yet to permit evaluation of these observations.

Therapy

It is generally agreed now that using heparin or dicumarol in conjunction with penicillin in the treatment of subacute bacterial endocarditis is not only unnecessary but is contra-indicated because of the danger of hemorrhage. Furthermore, there is no evidence as yet that sulfadiazine or fever therapy contribute to the therapeutic

results. Granted that penicillin is the important agent, the problems which arise are mainly concerned with the route of administration, duration of therapy and the criteria for judging progress during treatment. As to the method of administering the drug, there is no clear-cut evidence that one parenteral route is superior to another or that a constant drip is necessary. Many patients have been cured by fractional intramuscular injections every two or three hours, and it seems reasonable to try this method first and to use the more laborious continuous intravenous or intramuscular drips only in cases in which the disease proves refractory.

The daily dosage of penicillin and duration of treatment must vary from patient to patient, but certain general principles can be outlined. At least two to three weeks of uninterrupted therapy should be given; the daily dose should be that which attains average blood levels of four or five times the amount required for in vitro inhibition of the infecting strain. For the average patient, this dose will be between 500,000 and 1,000,000 units per twenty-four hours. If the organism is unusually resistant to penicillin or if relapse occurs after such a course of treatment, much larger doses may be required. As many as five or six relapses have occurred in a few patients who have eventually been cured and returned to useful active lives. The point above all others which deserves emphasis at this time is that hope of cure should not be abandoned under any circumstances unless the complications of the disease, such as incapacitating heart failure or cerebral embolization, render the patient clearly beyond repair. Doses of penicillin as high as 20,000,000 units a day have cured the infection of some patients in whom many months of therapy with from 2,000,000 to 10,000,000 units daily has failed. The upper limit of human tolerance to penicillin has not yet been established, and it may be that as larger amounts of the drug become available, still higher doses will be found effective in the occasional extremely refractory case.

The clinical course of patients under therapy is so variable as to make prediction of the outcome virtually impossible while penicillin is being administered. Some patients continue to have fever, elevated sedimentation rate, leukocytosis and embolic phenomena for several weeks after treatment is stopped and yet turn out eventually to be cured. Conversely, others appear to be doing beautifully as long as penicillin is adminis-

tered but relapse shortly after the drug is discontinued. Fortunately relapses almost always occur within two weeks. Our approach has been to treat patients for about three weeks and then to stop more or less irrespective of the clinical condition. If the blood cultures taken during the next two weeks remain sterile, one can be reasonably hopeful that the patient is cured even if everything has not returned to normal. If positive cultures are obtained again, a similar course of treatment with penicillin at a higher daily dosage is recommended. In my experience nothing has been gained in resistant cases by prolonging therapy beyond one month. Valuable time may be lost and one may get a false sense of security while an extended course of two or three months is in progress only to have a relapse occur at the end. Repeatedly patients have been seen who have had several relapses after prolonged courses and have been cured finally by an intensive course of from two to three weeks.

The degree of residual functional damage to the heart after cure of the infection has been surprisingly small in most of my cases. The great majority of patients have returned to full activity. Two patients have gone through pregnancy normally and only a small proportion of them require maintenance on digitalis. Several patients who have appeared to have alarming cardiac damage with mild decompensation during the active stage of the infection have shown unexpected increases in cardiac reserve during convalescence. With the added strain on the heart because of fever, anemia and perhaps focal infection in the myocardium, one may see definite cardiac failure which proves to be completely reversible as the infection is controlled.

It has been established beyond any doubt that a significant proportion of patients acquire bacterial endocarditis as a result of dental procedures, especially extraction of a tooth. For this reason, all patients who have valvular heart disease, either rheumatic or congenital, should be warned that they must never have any dental operations performed except under conditions where adequate prophylactic measures can be instituted. What constitutes a satisfactory prophylactic regimen has not yet been clarified. One patient developed the disease after tooth extraction in spite of full doses of sulfadiazine plus 25,000 units of penicillin every three hours for two days. At present my colleagues and I are giving sulfadiazine plus 100,000 units of penicillin every three hours for forty-eight hours followed by several days of sulfadiazine alone.

Whether or not this will prove adequate remains to be seen.

Summary

In summary, it may be said that subacute bacterial endocarditis is a disease fundamentally amenable to cure by chemotherapy and that penicillin has proved the most satisfactory agent so far. Because of the varying sensitivity to penicillin of different strains of nonhemolytic streptococci, it is strongly recommended that the sensitivity of the organism be determined in each individual case. The dosage necessary to effect cure of the disease varies widely from case to case depending primarily on the susceptibility of the infecting strain. With intensive and persistent therapy, it is possible to cure the infection in almost every patient, although at times as much as 20,000,000 units a day may be required."

Thomas H. Hunter, M. D.,
New York, New York.

WHAT DO YOU THINK OF THIS?

Resolution No. 24

Whereas, the Veterans Administration has authorized returning World War II veterans to take courses in chiropractics under Public Law 16 and 346, but under its present policy the graduates from such courses will not be recognized by the Veterans Administration, and

Whereas, the United States Government, through the Veterans Administration, furnishes hospitalization and out-patient treatment to disabled veterans, and

Whereas, a large number of World War I and World War II veterans are now compelled to pay for treatments by chiropractors out of their own funds,

Now, therefore, be it resolved by the American Legion in convention assembled that the Congress be petitioned to enact appropriate legislation which will provide that World War I and War II veterans so desiring it, may have the advantage of services which can be furnished by chiropractors under the existing hospitalization and out-patient program.

Be it further resolved that the Arkansas Department officials and the Department delegates to the National Convention of the American Legion are hereby directed to take all necessary steps to present and urge for adoption of the resolution by the 1946 National Convention.

—Arkansas Legionnaire, September 8, 1946.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

TRAVEL by air has become so commonplace that it is easy to overlook the fact that the altitude to which commercial planes ascend constitutes a risk to individuals whose pulmonary tuberculosis is under treatment by means of pneumothorax. The recent report* of the death, during flight, of a patient under treatment by pneumothorax, sharply emphasizes this hazard.

EFFECT OF ALTITUDE ON CASES OF PNEUMOTHORAX

One of the most useful forms of treatment for cases of pulmonary tuberculosis is artificial pneumothorax. Since a great number of people having an artificial pneumothorax wish to fly by air in the course of business it is very important that a correct understanding of what happens in the pneumothorax, at varying altitudes, be thoroughly appreciated.

Boyle's law states that, if the temperature remains constant, the volume occupied by a given quantity of gas varies inversely as the absolute pressure exerted upon it or, conversely, if the gas cannot expand, the differences of pressure correspondingly increase. The law covers the behaviour of gas in a thoracic cavity as in pneumothorax, during ascent and descent in an airplane.

During the war, experiments were carried out in a specially constructed chamber in which it was possible to reproduce exactly the same air pressure as at varying altitudes. An X-ray and fluoroscope were fitted in the chamber and the effect of ascent from ground level to any height desired was watched in each case. The patient was first X-rayed at ground level, then X-rayed and screened every 1,000 feet until he had reached a height beyond which it would not be advisable to proceed lest the pneumothorax were pushed beyond a safe collapse.

Various factors alter the height to which it is safe to go. In a case without adhesions and with a fixed mediastinum, with the collapse necessary to prevent the disease being active, greater heights will be possible if the lung is allowed almost to re-expand before the flight. The value of going to these heights, however, will be outweighed by the damage done to the intra-pul-

monary lesion by allowing too much re-expansion of the lung.

A gradual collapse of the lung will occur as the altitude increases which the patient will notice at about 6,000 feet. At 8,000 feet, he will probably feel very tight in the chest and will be breathless on slight exertion. The limit beyond which it is not safe to proceed is generally 9,000 feet in these cases. Those with a mobile mediastinum can proceed to about 11,000 feet if the opposite lung is allowed to become compressed, but this is not to be recommended.

Cases with adhesions should never go above 6,000 feet. Two cases with apical adhesions were able to proceed to 9,000 feet although they complained of feeling very dyspnoeic and tight in the chest. Both, at a later date, developed fluid which necessitated a thoracoplasty being performed. The same facts held good in pneumothoraces in which part of a lobe, or a whole lobe, was adherent to the chest wall. When these cases are at an altitude of about 8,000 feet the pulse rate is considerably increased and the vital capacity greatly reduced. In addition, there is dyspnoea and tight feeling in the chest. The drop in vital capacity is more in cases of mobile mediastinum than in fixed mediastinum, or cases with adhesions. In the experiments mentioned, where there was a mobile mediastinum the vital capacity at ground level was 2,550, and fell to 1,600 at 8,000 feet where one with fixed mediastinum only fell from 3,000 to 2,500.

The length of time it is possible to remain at the highest altitude to which it is safe to go is important. If it is necessary to fly at this higher altitude for any time over ten minutes, then at other times during the flight 6,000 feet should not be exceeded.

Cases of pulmonary tuberculosis who have

*Dowd, K. E., *Aviation Medicine*, October, 1945.

had other forms of treatment, such as phrenic crush or thoracoplasty, can, of course, fly to much greater altitudes without ill effects. One case of thoracoplasty, in an R.A.F. pilot, was taken to 30,000 feet without ill effects. Those who have had no treatment other than sanatorium routine, can fly to the same height as a normal individual without harm to their pulmonary lesions.

Pleural effusion cases clearly should not fly during the active phase when fluid is present, but once the case has been arrested and the fluid

absorbed, they can fly just as any normal person.

No harm should befall cases of pneumothorax if they do not fly above 6,000 feet as a rule, nor above 9,000 feet in a shorter emergency not exceeding ten minutes.

In days to come, when pressure cabins are a general rule in airplanes, pneumothorax cases should be able to fly at any altitude to all parts of the world.

Effect of Altitude on Cases of Pneumothorax, Geoffrey S. Todd, *NAPT Bulletin*, April, 1946.

EFFECT OF ALTITUDE ON ABNORMAL ACCUMULATIONS OF AIR IN THE CHEST

A patient with uncomplicated pneumothorax carrying 1,000 cc of intrapleural air at sea level will have the equivalent of 1,270 cc at 6,000 feet, 1,490 cc at 10,000 feet and 2,120 cc at 18,000 feet. We believe air travel for patients with pneumothorax should be restricted to those who would have no respiratory or circulatory distress and no physical discomfort if the abnormally accumulated air in the chest were increased by 100 per cent. An increase of 50 per cent would be permissible if the patient did not have to fly

above 10,000 feet. Adequate amounts of air should be removed prior to flight if dangerous increase in pulmonary collapse is expected at higher altitudes. The patient should breathe pure oxygen by mask if there is any possibility of hypoxia.

Effect of Altitude on Abnormal Accumulations of Air in the Chest, Ezra Bridge and Ezra Bridge, *The American Review of Tuberculosis*, June, 1945.

DANGERS OF AERIAL TRANSPORTATION TO PERSONS WITH PNEUMOTHORAX

Evidence accumulated seems adequate to justify warning all patients with pneumothorax to avoid transportation by airplane unless they can be assured that no altitude will be attained beyond that which they have previously tolerated without discomfort. Even under the latter condition it is possible that some harm might be done to unstable tuberculous lesions by the rather large degrees of alternate expansion and collapse

which may be occurring repeatedly during a flight, especially when there are frequent landings.

Dangers of Aerial Transportation to Persons with Pneumothorax, W. Randolph Lovelace II, M. D., and H. Corwin Hinshaw, M. D., *Journal of the American Medical Association*, April 11, 1942.

THE OKLAHOMA CITY CLINICAL SOCIETY ANNUAL FALL CLINICAL CONFERENCE

The Oklahoma City Clinical Society will present its sixteenth annual fall clinical conference in Oklahoma City, Oklahoma, on October 28, 29, 30, and 31, 1946.

Seventeen distinguished guests from various cities of the United States will present phases of medical advancement with which they have been identified from research and clinical viewpoints. The lectures are dedicated to the needs of the general practitioners.

Technical exhibits upon tried and true products and mechanical devices of modern medicine will be displayed in greater numbers this year.

The 1946 program for the Clinical Conference will be ideal for the physicians who wish to listen and acquire new ideas, restore forgotten points, and polish up on useful information.

Plan to attend the Sixteenth Annual Fall Clinical Conference of the Oklahoma City Clinical Society. Hotel reservations should be made early because of the large number of doctors wishing accommodations. Oklahoma City is easily accessible by rail, air, bus, or automobile.

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EDITORIAL

MORE ON FOLIC ACID

More interesting recent reports on the use of folic acid in pernicious anemia (Addisonian) are presented, adding to the previously available literature (see Beckman—Comments on Treatment, May, 1946).

The initial daily dosage employed by Kaufmann and Schwager ranged from 20 to 40 mg. orally and as the erythrocyte count approached normal, a reduction of dosage to 5, 10 or 15 mg. seemed to be an average maintenance quantity. The rise in red cell count approximated 90,000 per cmm. per day, while the hemoglobin rose 1 per cent daily, leading to a color index below 1.

These authors believe that in many instances folic acid may be used in place of the commonly used liver therapy; it has the great practical advantage of promptness and painlessness and appears to be free of untoward side actions. However, there is no evidence that folic acid will do more than liver preparations so that relapse may be expected if treatment is stopped. These observers have, so far, not found it necessary to administer supplementary dietary measures,

other vitamins, or hydrochloric acid, but obviously such adjuvants might be expected to be contributory to an even more satisfactory response, perhaps in the nature of a more rapid approach to normal.

Doan reports a series of 10 cases of pernicious anemia (Addisonian) in which satisfactory responses were obtained, whereas, other types of anemia do not appear to be amenable to this type of therapy. This author believes that from all information available the L. casei factor (folic acid) favorably affects all human macrocytic anemias; hence the factor presumably operates on the megaloblastic maturation process preventing anomalies of overgrowth. The dosages required by oral or intravenous route are essentially equal but differ significantly in different individuals, varying all the way from 1 mg. to 25 mg. daily. Since overdosages up to 125 or 150 mg. are usually well tolerated, the margin of safety between the minimal and maximal dosages is satisfactorily large.

The relationship of folic acid to the factors in liver extracts has not as yet been established, while required dosages tend to indicate that what actually operates may be some more potent combination of folic acid with other and unknown complexes.

One is tempted to speculate as to the cause of deficiency of this peculiar and highly specific substance. Kaufmann and Schwager state that the folic acid content of sweat, obtained from profuse perspiration, is much higher than that contained in the urine. Is this type of anemia due to excessive loss of folic acid through excretory channels; is there an excessive loss within the intestinal tract, or are there present substances that destroy or antagonize it? One is reminded of the apparently well established fact that in the anemia from the giant fish tapeworm infection in man, the manifestations are essentially identical to pernicious anemia, even to response to liver injections. In this case it suffices to remove the worm. Other blood-sucking worms, such as the hookworm, do not cause this type of anemia. Is it that in the case of the anemia from the fish tapeworm, some substance, unique to this worm, is absorbed and uniquely affects the hematopoietic system or prevents folic acid from acting? In pernicious anemia is there an absence of folic acid in the intestinal tract and excreta? The field is wide open to the hematologist.—A. L. Tatum, Wisconsin Medical Journal, August, 1946.

EDITORIAL COMMENT

REPORT OF THE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

Mr. George Cooley and Mr. Howard Brower of the Council on Medical Service of the American Medical Association were in Little Rock, August 26 through 30. They met with members of the Arkansas Medical Society Committee; Mr. Edward L. Wright, legal counsel; and members of the Arkansas Hospital Association, and discussed the basic phases for the formulation of a prepaid medical care plan.

After studying the situation here, they will make a written report to your committee for consideration. Mr. Cooley and Mr. Brower evinced a sincere interest and willingness to be helpful with our program. They plan additional conferences with us.

Mr. William S. McNary of Denver will be in Little Rock, the week of September 15, to meet with your committee and with the committee of the Arkansas Hospital Association to discuss the hospitalization aspect of the program. Mr. McNary has had extensive experience in the management of a similar program owned and operated by the Colorado State Medical Society.

At the conclusion of these conferences, your committee will draft a definite plan for submission to the House of Delegates.

RANDOM THOTS OF THE SECRETARY

August 22nd. Meeting with the affable Lowry to draw up the Veterans Administration agreement and finding him most pleasant, as perhaps his classmate, Dishongh, and military associate in the port headquarters business, Washburn, will attest. Home again on the Rocket which is growing to be a habit like unto the war years.

August 29th. Traveling the beautiful Petit Jean valley this morning with Magazine, Spring, Flood and Danville mountains as majestic sentinels, and conducting the diagnostic cancer clinic, having briefly the assistance of Kent Grace, whose professional services are much in demand over this part of Yell County today, he having been fox-hunting in his accustomed manner all last night.

September 1st. With Amis and Fount Richardson as guests driving to Hot Springs today where the Council meets for a discussion of the provision of medical care to veterans and, while the Arlington provides a good lunch, we wonder about Amis and Richardson across the street. Then to sit with the committee on medical education and hospitals and finally homeward, Fount's dulcet singing voice carrying on for the entire trip, but our lasting impression is the refusal of our guests to eat forcing us to forego nourishment until we meet with the

Fayetteville Richardsons', come to escort Fount on home. We can now well name US 271, 'The Cowboy Trail,' having dodged cattle each and every half mile, Midway to the Garland County line.

September 3rd. In Saint Louis today with President Wade and Council Chairman Thompson to hear discussions of legislative trends and their proper evaluation, taking time off to visit Lowry of the Veterans Administration and sign on the dotted line for the Society's participation in the provision of medical service to veterans, a far-reaching step for private practitioners in this state.

September 4th. Skinner's dramatization of how to effectively combat collectivist legislative trends is exciting and takes us back to the days of Skinner, Hunt and Helwig who originated the impromptu presentation of scientific subjects to the great interest of physicians in the "Heart of America" some years back.

September 10th. Some thirty-five of the faithful are rewarded for attendance by good steaks, good fellowship and a good time as the Tenth Councilor District Medical Society dines al fresco tonight south of Fort Smith.

September 14th. Bewilderment continues in Washington and sober-minded Americans may well ponder where we are going.

September 19th. Today's headlines say that Truman has doubts over the future of the wage stabilization program; the rest of the country passed beyond the doubt stage in its thinking last week.

A PRELIMINARY REPORT

of the Committee on Liaison Between the Arkansas State Medical Society and the Arkansas Tuberculosis Association on July 21, 1946

This Committee held a conference, attended by the Director of the Division of Tuberculosis Control of the State Board of Health and the Executive Secretary of the Arkansas Tuberculosis Association. The cooperative program of these two latter associations was outlined to the committee and the general policies relating to the diagnostic X-ray survey program of the Arkansas State Board of Health were discussed.

The Committee wishes to report that in order to find unsuspected cases of pulmonary tuberculosis in apparently well individuals, a survey by means of miniature photofluorographic films is the most practical procedure for accomplishing this and recommends that such a program be supported by all members of the Arkansas Medical Society.

These surveys will be conducted according to the procedure recommended to and adopted by the Arkansas State Medical Society at its April, 1946, meeting, and they are as follows:

1. All screening X-ray service will be done by use of miniature X-rays.
2. Each person X-rayed **must** indicate his

family physician, or the physician to whom he wishes the report sent.

3. The family physician will not be notified when the miniature X-ray findings are essentially negative but the patient will be so notified by letter from the local County Health Department.

4. When suspicious findings are present on the miniature film, the tentative diagnosis and recommendations made on this basis will be reported to the family physician in writing before the patient is contacted by the Health Department.

5. Findings of these miniature films shall be only tentative and shall be construed to mean only that further examination of the patient by his family physician is indicated.

6. This further examination shall in every instance include a chest X-ray of standard size dimensions made by the family physician or by a roentgenologist to whom the patient is referred by his family physician.

7. No pathological diagnosis will be given to the patient by a representative of the Health Department, it being understood that the final diagnosis is to be determined by the family physician and imparted to the patient by him. This final diagnosis should also be reported to the local Health Department.

8. The miniature films will be filed in the central office of the State Health Department and will be available for inspection by any patient's family physician upon written request by the patient or physician.

The Committee after full discussion voted unanimously to endorse in full the above program.

Respectfully submitted,

A. C. Shipp, M. D., Chairman
J. D. Riley, M. D., State Sanatorium
J. F. Williams, M. D., Texarkana
S. C. Fulmer, M. D., Little Rock
R. C. Dickinson, M. D., Horatio
R. M. Kelly, M. D., Lonoke
C. K. Townsend, M. D., Arkadelphia.

OBITUARY

ANTHONY C. THIOLLIERE, age 69, North Little Rock, died September 2nd. Born in France, he graduated from Universite de Lyon Faculte de Medecine et de Pharmacie in 1894 and from

Dallas Medical College (Trinity University) in 1903. For thirty years he practiced medicine in Lincoln County. He served as a captain in the army medical corps during World War I. He was an honorary member of the Lincoln County Medical Society and of the Arkansas Medical Society. He is survived by his wife.

LEONARD R. BOEN, age 62, died at Clarks-ville September 11th. Formerly a practitioner in Johnson County, he moved to Oak Grove, Carroll County, several years ago, and later located at Bauxite during the war period. Surviving relatives are his wife, two sons and four daughters.

PAUL C. ESCHWEILER, age 43, Little Rock, died August 23rd. Born in Wisconsin, he graduated from the University of Wisconsin Medical School in 1928 and had practiced in New York before coming to the University of Arkansas School of Medicine as Professor of Medicine in 1940. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society and a Fellow of the American Medical Association and of the American College of Physicians. He was vice-president of the Arkansas Philharmonic Society. Surviving relatives are a son and a daughter.

SAMUEL JESSE MCGRAW, age 76, El Dorado, died September 6th. He attended Arkadelphia Methodist College and graduated from the University of Arkansas School of Medicine in 1906. He first located at Wesson but moved to El Dorado in 1910. He was a member of the Union County Medical Society, the Arkansas Medical Society and of the board of stewards of the First Methodist Church. Surviving relatives are his wife and two daughters.

CLOSING DATE MAY 15, 1947

The \$34,000 prize contest for physicians' art work on the subject of "Courage and Devotion Beyond the Call of Duty" will be judged at the Atlantic City Centennial Session of the A.M.A. at Atlantic City June 9-13, 1947.

Art works on other subjects may also be submitted for the regular cups and medals.

For full information, write Dr. F. H. Redewill, Secretary, American Physicians Art Association, Flood Building, San Francisco, Calif., or to the sponsor, Mead Johnson & Company, Evansville 21, Ind., U.S.A.

PROCEEDINGS OF SOCIETIES

The Tenth Council or District Medical Society met in picnic session at Fort Smith September 10th, electing the following officers: President, D. W. Goldstein, Fort Smith; vice-president, Geo. M. Love, Rogers, and secretary, Freidman Sisco, Springdale. The Society will next meet at Springdale.

The Washington County Medical Society was addressed September 3rd by Ralph E. Weddington on "Purpose of the Proposed Arkansas Child Health Survey." Ruth Ellis Lesh, Secretary.

The Craighead-Poinsett County Medical Society was addressed recently by A. C. Curtis, Little Rock, on the control of tuberculosis. A. M. Washburn and Capt. W. A. McQuary, of the Arkansas State Board of Health, also addressed the society. J. H. McCurry, Secretary.

PERSONALS AND NEWS ITEMS

H. Clay Chenault, Hot Springs National Park, has been elected Vice-President of the University of Arkansas and Dean of the School of Medicine.

A. C. Kolb, Little Rock, recently addressed the Little Rock Science Club on "The Role of Psychiatry in Our Daily Lives."

W. B. Harrell has located at Texarkana for practice with offices in the Beck Building.

"Skin Dressings in the Treatment of Debrided Wounds" by Ellery C. Gay, Little Rock, appeared in The American Journal of Surgery, August 1946 issue.

William I. Porter, who graduated from the University of Arkansas School of Medicine in 1941 and who recently completed an internship at the Baptist Hospital, Memphis, is now associated with the Hawkins Clinic Hospital, Searcy.

J. E. Little, Fort Smith, spent a recent vacation in California.

E. D. McKnight, Brinkley, recently visited the Mayo Clinic.

E. H. Wilkes is now associated with James W. Branch at Hope.

William L. Bunch, U.S.P.H.S., is now located at the Mid-South Medical Center, Birmingham, Alabama.

A. C. Kolb has resigned as superintendent of the State Hospital and N. T. Hollis has been appointed acting superintendent.

Dr. and Mrs. O. J. T. Johnston, Batesville, spent a September vacation on the Mississippi Gulf Coast.

Dr. and Mrs. J. S. Southard, Fort Smith, spent a September vacation in Colorado.

R. B. Robins addressed the Business and Professional Women's Club of Camden recently on "Election Laws of Arkansas."

E. C. Moulton, Fort Smith, spent a recent vacation in Colorado.

BORN—On August 31st, a daughter, Linda Lee, to Dr. and Mrs. Alvin Longstreth, Little Rock.

W. W. Brown has relocated at Hardy after being in practice at Eckman, West Virginia.

D. L. Massey, Osceola, is chairman of the Mack Brider American Legion Post's campaign for a "Walking Blood Bank."

W. H. Mock, Prairie Grove, spent a recent vacation in Colorado.

R. L. Taylor, Conway, spent a recent vacation in Colorado.

Ralph E. Weddington has been released from military service and is now associated with Drs. Hathcock at Fayetteville.

R. F. Hyatt, Jr., has been appointed part-time venereal disease clinician at Monticello.

W. H. Martin has been appointed part-time venereal disease clinician at Holly Grove.

Byron Z. Binns has been appointed part-time venereal disease clinician at Eudora.

Lawrence E. Drewery has been appointed part-time venereal disease clinician at Little Rock.

V. D. McAdams, Cord, has been appointed

Superintendent, Junior Division, Independence County Fair.

Alan A. Gilbert, Fayetteville, has been elected chef de train, Arkansas Forty and Eight.

J. O. Boydstone, Hot Springs National Park, has been elected surgeon-general, Arkansas Department, American Veterans World War II.

Comdr. Geo. F. Stocker is now on duty at U. S. Naval Hospital, San Diego, California, as assistant in the department of roentgenology.

Dr. and Mrs. Geo. V. Lewis, Little Rock, spent an August vacation at points in the western United States and Canada.

BORN—On July 30th, Elizabeth Jeanne, to Comdr. and Mrs. Geo. F. Stocker, San Diego, California.

MARRIED—On August 20th, Melvin R. McCaskill and Miss Mary Carolyn Combs, Little Rock.

Dr. and Mrs. S. P. McConnell, Booneville, spent a recent vacation in Chicago.

Dr. and Mrs. M. E. Foster, Fort Smith, spent a recent vacation in Colorado.

Dr. and Mrs. W. L. Shippey, Fort Smith, spent a recent vacation at Lake Taneycomo.

Jim McKenzie has been elected surgeon of the Hope post, American Legion.

J. M. Matthews has been elected surgeon of the Morrilton post, American Legion.

A. S. J. Clarke, Fort Smith, spent a recent vacation at Lake Charles, Louisiana.

Dr. and Mrs. S. A. Thompson, Camden, spent a recent vacation in Boston.

H. H. Smith, Fort Smith, visited the Mayo Clinic during August.

BOOK REVIEW

Dr. Colwell's Daily Log for Physicians. Price \$6.00. Campaign, Illinois: Colwell Publishing Company.

The Journal has repeatedly called attention to the perfection of this single volume record system for physicians. We again suggest that the individual practitioner cannot provide himself with a more complete and satisfactory record system for professional and non-professional income purposes.

Principles of Dynamic Psychiatry, by Jules H. Masserman, M. D., Division of Psychiatry, Department of Medicine, University of Chicago. 322 pages with 4 plates. Philadelphia & London: W. B. Saunders Company, 1946. Price \$4.00.

This is a 1946 volume which presents the fundamentals of psychiatry in a clear, concise manner. It deals with the subject in a way which makes it a most readable book. It is rich in case history illustrations which to those not thoroughly trained in psychiatry is most helpful. It is an excellent book for the student, as well as all those limiting their practice to this particular field.

Howell's Textbook of Physiology, edited by John F. Fulton, M. D., Sterling Professor of Physiology, Yale School of Medicine. Fifteenth Edition. 1,304 pages with 507 illustrations. Philadelphia and London: W. B. Saunders Company, 1946. Price \$8.00.

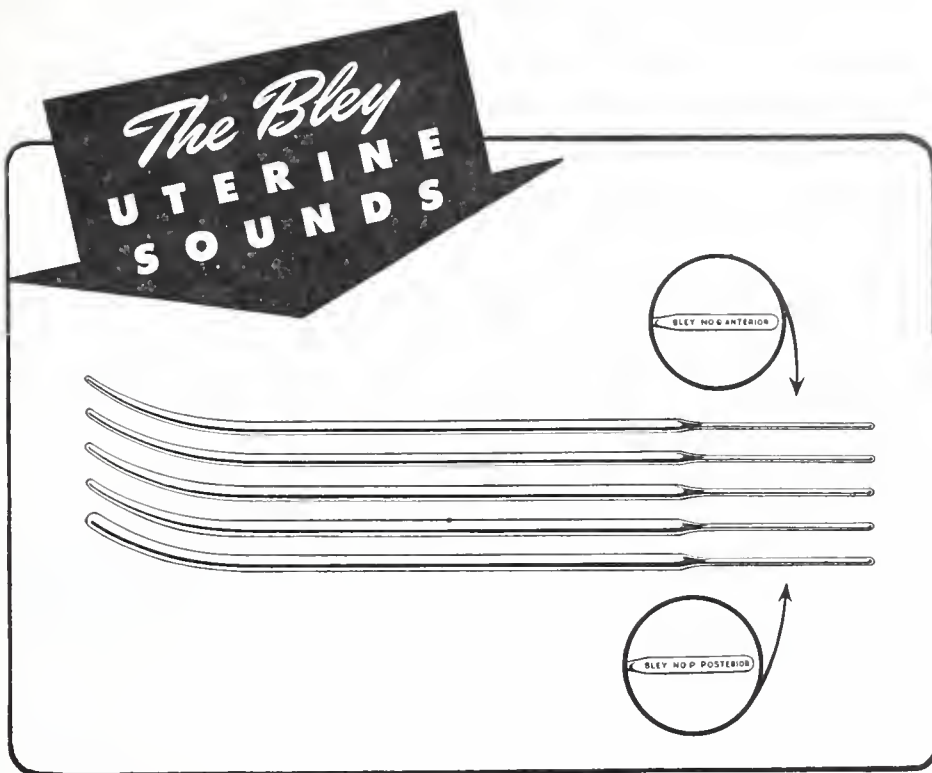
This is the 15th Edition of this popular work. It needs no introduction to the medical profession of this country as it has been favorably known over the many years. Dr. Fulton has been assisted in the preparation of this edition by a group of contributors from some of the leading universities in the United States. These scientists, each in his special field, have brought this book up to date in every respect.

The average physician, regardless of his field of practice, as a rule, neglects to keep informed as to the progress made in the field of physiology. This is important.

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Electrocardiography in Practice, by Ashton Graybiel, M. D., Captain, Medical Corps, U. S. Naval Reserve Coordinator of Research, U. S. Naval School of Aviation Medicine, Pensacola, Florida; and Paul D. White, M. D., Lecturer in Medicine, Harvard Medical School; Physician, Massachusetts General Hospital; with the assistance of Louise Wheeler, A. M., Executive Secretary, The Cardiac Laboratory, Massachusetts General Hospital; Conger Williams, M. D., Assistant in Medicine, Harvard Medical School and Massachusetts General Hospital. Second Edition. 458 pages, with 323 illustrations. Philadelphia and London: W. B. Saunders Company, 1946. Price \$7.00.

The general format and style of this edition have not been altered radically. This edition, however, does present new material because of advances in clinical electrocardiography since the appearance of the first edition. The method of presentation is, in the opinion of the interviewer, excellent from the standpoint of instruction. Interpretation of the electrocardiogram is presented first, the clinical findings next, and finally a comment is added to complete the analysis of the case.

The volume comprises five parts. The first is devoted to essential physiologic principles and technique. In the second part, even greater emphasis than heretofore is placed upon a proper evaluation of the broad range of the normal patterns. The third part has to do with the various disorders of rhythm, while the fourth takes up the electrocardiographic changes in the various diseases which affect the heart. This has been expanded to include a full consideration of multiple chest leads. The fifth part presents an entirely new series of "test" electrocardiograms shown in random fashion for practice in interpretation.

Both the student and the practitioner of clinical electrocardiography will find this edition even more valuable than the first.

The authors' presentation of the problem of multiple chest leads is outstanding, particularly since this field of electrocardiography is, to say the least, still in a state of confusion.

Mitchell-Nelson Textbook of Pediatrics: Edited by Waldo E. Nelson, M. D., Professor of Pediatrics, Temple University School of Medicine. With the Collaboration of Forty-Nine Contributors. Fourth Edition, Revised. 1,350 pages with 519 illustrations on 333 figures, 26 in color. Philadelphia and London: W. B. Saunders Company, 1945. Price \$10.00.

This well-known volume represents the work of 49 authorities, edited by A. Graeme Mitchell, is a valuable text for both the practitioner and the specialist. Illustrations and tables add materially to the value of the book. Of particular interest is the attention paid to the well child.

COMING MEDICAL MEETINGS

Kansas City Southwest Clinical Society, Kansas City, October 7-10th.

International College of Surgeons, Detroit, October 21-23rd.

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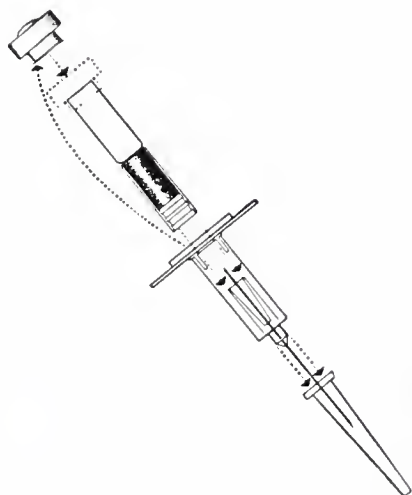
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THE PHYSICIAN'S RESPONSIBILITY IN VENEREAL DISEASE CONTROL*

DAVIS W. GOLDSTEIN, M. D.
Fort Smith

Before the last world war there was only one agency interested in the control of venereal disease. This agency was the Social Hygiene Association, which was formed in 1913. Educational methods on venereal disease were introduced by this agency. This was confined to education of the public. They carried on until 1917, when through the U. S. Public Health, the Army and the Navy venereal disease was brought out in the open, and it was realized that public information should be emphasized, and that houses of prostitution should be abolished. At this time the house of delegates of the American Medical Association adopted the following five points:

1. That sexual continence is compatible with health, and is the best prevention of venereal disease.
2. That steps be taken toward the eradication of venereal infection through the repression of prostitution and by the provision of suitable recreation facilities, control of alcoholic drinks and other effective measures.
3. That plans be adopted for centralizing control of venereal infection through special divisions of the proper public health and medical services.
4. That the hospital census be encouraged to increase their facilities for early treatment, and follow up service, for venereal disease as a measure of national efficiency.
5. That the members of the medical profession be urged to make every effort to promote public opinion in support of measures instituted in accordance with these principles of action in the control of venereal disease.

With this stimulus and also that of the public health, army and navy activities, the World War I rate was lower than any war in the history of our country.

Through the medical officers the men in the army and navy were instructed in venereal disease control, and prophylaxis was used. There was also an attempt at education of the public, but there was still a hush-hush of the words syphilis and gonorrhea. After the war there was a let-down on publicity and other methods of control. There was indifference in communities and we again had prostitution.

In World War II we had 11,000,000 men in service, with over 44,000 doctors. These doctors have carried on intensive educational campaigns to both officers and enlisted men on venereal disease control. With the return of these doctors to civilian life we have a nucleus of medical control. It is hoped that the same story of after World War I is not carried out after World War II.

In 1942 the house of delegates of the American Medical Association (2) passed the following resolutions:

1. That the control of venereal disease requires elimination of commercialized prostitution.
2. That medical inspection of prostitutes is untrustworthy, inefficient, gives a false sense of security, and fails to prevent the spread of infection.
3. That commercialized prostitution is unlawful, and physicians who knowingly examine prostitutes for the purpose of providing them with medical certificates to be used in soliciting are participating in an illegal activity, and are violating the principles of accepted professional ethics.

The rate of World War II is even lower than that of World War I. Of course in 1943 penicillin was introduced in treatment of both syphilis and gonorrhea by Mahoney, Arnold and Harris in its spectacular results, and the U. S. Public Health and rapid treatment centers have reduced the incidence of both syphilis and gonorrhea. We have the weapons, but this is not enough. We must use these weapons intelligently, and also our responsibility does not cease here. We have the responsibility to educate the public on the dangers of venereal disease.

*Read before the seventieth annual session, Arkansas Medical Society, Little Rock, April 16, 1946.

We should have learned a lesson in the past from tuberculosis on contact reporting and education of the public. The reduction of tuberculosis deaths to one-third, and without the use of specific drugs this rate has been lowered.

During the past thirty years epoch making discoveries in the diagnosis (3) and treatment of venereal disease have been made, and increased facilities for their use have been made available everywhere, yet widespread prevalence of these diseases continue because we have failed at contact investigation.

If we wish to have the greatest application of the methods of diagnosis for prevention, proper reporting of contact cases, as well as contacts, is essential. There should be a liaison between the physician and the health department. You should use their investigators, and these cases will be referred back to you or to the patient's physician for diagnosis and for treatment. The health department will contact the physician to see if the patient continues the treatment, or you should report to the health department if the patient does not continue the treatment after the diagnosis is made. You should have confidence in your local health department, and if something does not satisfy, you should feel free to contact them. In turn they should feel free to contact you.

Your responsibility is not only to the general public, but when a patient with venereal disease consults you, you should proceed to educate him or her as to the seriousness of the disease and explain the necessity of regular and continuous treatment and follow-up.

The legal responsibility is brought home to us by laws which have been passed in other states for the control of venereal disease. We have laws to control prostitution passed as a war emergency measure. There is a law stating that every doctor should instill silver nitrate into the eyes of a newborn baby for the prevention of ophthalmia neonatorum. The statute requiring reporting of venereal disease is the same as any other communicable disease. Reporting of a venereal disease source is as much your responsibility as reporting measles, smallpox or meningitis.

There is no premarital law requiring examination for venereal disease; no law requiring a blood test at prenatal examination. In the last legislature a prenatal law was prepared by the state health department, department of venereal disease control, under Dr. Edgar Easley. It had the endorsement of the committee on syphilis control of the medical society, also the infant

and maternal welfare committee. It was presented in the House of Representatives by a doctor, and after much debate and numerous amendments it was passed. In the Senate it had a stormy time. One of the leaders against it was a physician. So many amendments were added that it was finally withdrawn. One amendment proposed was that a blood test be done only on Negro women. The attorney of this society or the legislative committee hardly knew about the bill until it was already lost. It is my opinion that this bill should not have been sponsored by the State Health Department or the Medical Society, but should be presented by a group, such as federated clubs, parent-teachers or social workers. The medical society and state health department should not be in the front lines, but should act as a steering committee to give strong support to this group. This again is our responsibility.

If we can prevent congenital syphilis, we go a long way in stamping out syphilis. It has been estimated that three out of every one hundred born (4) have syphilis, which they acquire at the period before they are born. It has been stated that out of all the babies who die before they are twelve months old, 40 per cent die before they reach the age of one month, with syphilis outstanding as the cause of such early deaths. The saddest fact in relation to this misfortune is that this is all preventable, but that one social organization or concern has not yet found the way to make prevention the practice.

The most important step in this prevention is examination of every prospective mother, including the making of a serological test for syphilis. The earlier this is done, the better the chance that there will be a healthy baby. The best time to cure the disease is before the baby is born. If the mother begins treatment during the first three months of her expected period, infection of the baby can be prevented. But even if it is not started until the fourth or fifth month, she still may have a healthy baby. Treatment should be begun when the diagnosis of syphilis is made. Of course if that baby is born with syphilis, immediate treatment should be given.

Premarital laws should come after prenatal laws are passed. With standard laboratories privately owned and the state laboratory, and proper evaluation of serological tests by the doctor, the good such laws would do would be far greater than the harm.

Thirty-two states and Hawaii require blood tests for syphilis of both bride and groom before

issuing marriage license.

Three states require examination by physician for venereal disease, or medical certificate showing freedom from such diseases, usually of grooms only.

One state prohibits marriage of persons infected with venereal disease, or requires personal affidavit of freedom from such diseases, but no examination specified.

Twelve states grant marriage licenses without regard to venereal disease infection. Arkansas is one of these states.

Thirty-five states and Hawaii require prenatal blood tests for syphilis.

Thirteen states and the District of Columbia do not require prenatal blood tests for syphilis. Arkansas is one of these states.

The medical control of syphilis begins when the patient with suspicious lesions reports to his physician. Stokes says: "Alert suspiciousness of (6) mind, necessary though it may be in all medical diagnosis, is an absolute prerequisite to the successful detection of syphilis."

Any suspicious sore should have a darkfield examination. Too often a blood test is taken and if negative the patient with an innocent looking sore is told that his blood is okay and he should not worry. If the blood test is relied upon, it should be repeated at weekly intervals for the first month, and not longer than two to four weeks for at least three to six months. No treatment should be given without two positive tests.

Our responsibility to the veteran who has received penicillin treatment in the army for syphilis, or is found to have had a positive blood on discharge without any infectious lesion:

You have recently received a bulletin from the Arkansas State Health Department telling you of the procedure to follow in these cases. This bulletin was also published in the February 1946 State Journal. I quote from this bulletin:

"Every veteran who had syphilis in the service, regardless of status of treatment at the date of discharge, should be re-established under a physician in civilian life, and should remain under observation for a lengthy period of time, probably not less than five years." (7)

Syphilis is a disease requiring long observation. Where a veteran is considered to have completed an adequate amount of treatment while in service, he has been advised to return to a physician and have serological tests regularly. Relapses are most likely to occur during the first twelve months after treatment is completed. At

the end of five years the veteran should be thoroughly examined, including cardiovascular examination and cerebrospinal fluid examination. No patient with a history of syphilis should be discharged as probably cured before this period of observation or without a spinal tap being done.

Veterans with a positive or doubtful serological test for syphilis at the time of discharge, with no history of syphilis, have an important sign which must be considered seriously. The test may represent a mask syphilis infection through the use of penicillin in the treatment of acute gonorrhea during military service.

While a single positive serological test for syphilis in the absence of corroborative symptoms and signs is not diagnostic of syphilis, nevertheless such cases cannot be classified as non-syphilitic until several negative serological tests have disproved the previous report. False positives should be followed for a period sufficiently long to establish the significance of the positive or doubtful serological test first discovered.

Malaria is a disease that should be considered in positive serology. There is a possibility that the individual has become infected with malaria while in the service. You must remember that a spurious positive test may be encountered in the presence of malaria. Recently I had a case of a veteran who had two positives, and when a blood smear was taken the malaria parasite was found. Three months after proper antimalaria treatment, his blood became negative. The same evaluation of these tests should be given as any other positive serological test without clinical signs.

I ask you to review this Bulletin. If you have misplaced it or the Journal, another will be furnished on request by the State Health Department.

I would like to quote from an article by Dr. Joseph Earl Moore on the chemotherapy of syphilis (8). The chemotherapy of syphilis by Dr. Joseph Earl Moore shows the present status of the treatment of syphilis:

"Some years ago I was so misguided as to have joined the long rank of doctors who had written books on the treatment of syphilis. I was sufficiently bold eleven years ago as to entitle my own efforts 'The Modern Treatment of Syphilis.' The italics are new and ironical. Today my own book and the many which preceded it are of historical interest only, and now when the question is asked, 'How do you treat syphilis?' my answer is, 'I don't know, but in company with

many others I am trying to find out.' "

Since the report of Mahoney, Arnold and Harris on the use of penicillin in early syphilis (9), the members of the medical profession who treat syphilis, whether early or late, are confronted by the question, "How should I treat this case?"

The Committee on Syphilis Control recommends that the treatment of syphilis be continued for the present as outlined by the cooperative group, remembering that any shortening of the time interval of the administration of arsenicals increases the toxicity of the drug. They also suggested that before treating gonorrhea with penicillin the patient should be cautioned that he may have syphilis also.

By the administration of penicillin the symptoms of syphilis may be masked. Serological tests for syphilis should be made before treatment for gonorrhea, also repeated each month for three months after treatment of gonorrhea with penicillin.

SUMMARY

1. See that effective laws are passed for the control of syphilis.
2. Report all cases of venereal disease to the State Health Department through the local health department.
3. Give adequate treatment for cure of all patients under treatment.
4. Interview patients for contact. Furnish local and state health departments with list of contacts for action. Contacts to be referred to doctor for treatment.
5. Use services of V-D investigator for case holding.
6. Make routine STS on all expectant mothers and place them under proper treatment if found to be infected.
7. Educate the patient as to the seriousness of his disease and explain the necessity for regular and continuous treatment.
8. Follow up all discharged veterans with positive bloods on discharge and impress upon them the necessity for continued observation.

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MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society

C. T. CHAMBERLAIN, M. D., Chairman
Ft. Smith

VASCULAR INJURIES DUE TO COLD WITH PARTICULAR REFERENCE TO THE LATE PHASE OF TRENCH FOOT

"Cold produces intracellular damage, which may be irreversible." The injury is roughly proportional to the intensity of the cold and to the duration of exposure. The distal portions of the extremities are particularly vulnerable because they are frequently exposed, poorly insulated and susceptible to trauma and because the peripheral circulation with its heat-regulating function is quick to reflect changes in the environmental temperature.

Types of Cold Trauma

Although the various types of cold injury have distinctive labels which make them appear to have diverse origins, they actually have much in common.

In the extreme cold of the stratosphere, the tissues of a hand which becomes exposed through loss of a glove may be frozen solid almost instantaneously.

The "ground type" of frost-bite follows exposure of a limb for a few hours to subzero temperatures, resulting in partial or complete freezing of tissues.

Prolonged exposure to cold and moisture produces trench foot. This can develop in as short a time as a few days but the period of exposure sometimes runs into weeks. Even when the environmental temperature is above 32 degrees F. a cold injury can occur in wet extremity through abstraction of heat from the tissues, since water conducts heat better than does air. Other factors, such as immobility, dependency and tight shoes and leggings, aggravate the thermal trauma.

Immersion foot, the clinical counterpart of trench foot, occurs in shipwreck victims who have existed in lifeboats or rafts for varying periods. Starvation, the dependent position of the legs, lack of muscular movements and maceration of the tissues by water play prominent roles in producing the resulting clinical picture.

Finally, in chilblain or pernio there has been exposure of the acral portions of the limbs, especially the pressure or bunion areas of the tip of the nose or lobes of the ears, on repeated occasions. Chronic erythema develops in such localized areas and these areas are painful even when the outside temperature rises to normal levels. In essence, chilblain is a mild type of frostbite of the superficial tissues.

Pathological Physiology

The wealth of clinical material comprising the various thermal injuries in World War II has done much to dispel the obscurity which hitherto has surrounded them. In actual freezing of soft tissues, such as occurs below a critical temperature of -21 degrees F., ice crystals form in the cells, in the walls of the vessels and in the tissue spaces, disrupting the cellular structure and resulting in necrobiosis. Such direct damage may be extreme, resulting in loss of an entire limb or parts thereof. More commonly, however, only the superficial tissues are so involved. Damage to the deeper tissues usually is secondary to change in the blood vessels and this, in reality, is the all-important factor from the viewpoint of viability of the tissues.

Studies in the case of trench foot have yielded fruitful results, which are representative of the changes found in all cold injuries. During the period of exposure there is a constriction of vascular elements of all types and sizes, even of vessels of the caliber of the dorsalis pedis and posterior tibial arteries. This probably represents reflex spasm due to general chilling of the body and is compensatory, to prevent further dissipation of heat. Aschoff's recent experiments on strips of excised artery show that the primary response to cold is one of vasodilatation. Biopsy specimens taken during the ischemic stage show little more than arteriolar constriction; there is no change of cellular structure although it is known that profound changes of cellular metabolism have taken place. Dissociation of hemoglobin is almost at a standstill. During this anoxic phase the capillaries become permeable and there is exudation of fluid into the tissue, producing some swelling. The affected member appears pale or waxy yellow and may remain in this algid state for days or even weeks.

Once thawing sets in, a dramatic change takes place. Cellular metabolites, such as H substance, carbon dioxide and so forth, which have accumulated locally even though activity in the cell has been at a low ebb, result in intense vaso-

dilatation. Grossly, the limb is warm and red or purplish red. Microscopically the vascular endothelium, which has appeared more or less normal until now, becomes swollen and the lumina contain agglutinative thrombi. The muscle fibers in the media of the arterioles are swollen and vacuolated. There is dissolution of cellular boundaries and the edema, which was moderate during the ischemic phase, now increases to high proportions. The escape of fluid and cellular elements into the surrounding tissues results in further embarrassment of the arterial supply. Blebs and blisters form rapidly. There may be rupture of small vessels, resulting in subcutaneous hemorrhage. Necrosis of the skin is due in part to direct injury by cold and secondarily to capillary thrombosis. It is important to realize, as has been so clearly stated by Wilson, that these lesions of soft tissue are not due to the primary injury by cold, but to the "sudden re-establishment of the circulation with its resultant paralytic dilatation of the vessels, intense exudation and circulatory stasis leading to malnutrition." Superimposed pyogenic infection frequently complicates the picture. Fortunately, most patients pass uneventfully into the chronic phase of trench foot without deep necrosis and eventually to complete recovery.

State of the Circulation in Cases of Late Trench Foot

The symptoms of late trench foot—pain, swelling, sweating, coldness and changes of color—have given rise to the statement that this disease is primarily a circulatory disorder. Some of the investigative work refuting this extreme viewpoint is presented.

The large blood vessels.—Personal examination of more than 1,000 patients and the records of 4,000 more showed the peripheral arteries to be normal clinically; none showed evidence of arterial insufficiency. Bounding pulses frequently were felt in cases in which gangrene of all the toes or even of the distal half of the foot was present. Oscillometric readings simply corroborated the foregoing findings.

Phlebitis of the saphenous vein directly following trench foot was encountered in a few cases. It was surprising to find such a low incidence inasmuch as cold is a frequent predisposing or even exciting factor in producing thrombophlebitis in civilian groups. Patterson made the same observation in his study of patients who had cold injuries sustained in the Kiska and Attu campaign.

On several occasions patients who had sharply localized pain, warmth and swelling over the mesial aspect of the ankle near the internal malleolus were seen. It was felt that this condition represented phlebitis of the plantar veins of the foot, although this could not be proved.

The smaller blood vessels—The smaller blood vessels were studied in a variety of ways.

1. Examination by capillary microscopy of the nailbeds of the fingers and toes of patients who had late trench foot showed nothing which could be considered peculiar to this condition. The arrangement of the capillaries was regular and the corpuscular flow was normal despite clinical evidences of extensive involvement of sensory nerves or in the presence of marked sweating. In patients who had pallor of the hands and feet, the capillaries were narrow but normal in number, arrangement and blood flow; in patients who had marked cyanosis or rubor, the capillary loops exhibited varying degrees of dilatation and slowing of blood flow through them, amounting to complete cessation of blood flow in the extreme cases. In patients with edema, the capillary pattern was similar to those seen in patients who had pale skin. Such findings have been corroborated by Schechter and Ragen in cases of early trench foot encountered in advance echelons.

The one outstanding observation from direct study of the capillaries is that they are not uniformly dilated or paralyzed—vasomotor tone is present—and blood flow through the capillary loop continues with the usual variations. A recent statement by Freedman based on a study of fixed tissue sections in which he described a paralytic dilatation of the capillaries as an essential part of the pathologic changes, probably is applicable only to the very early stages of trench foot.

2. On performance of the test of reactive hyperemia any of the patients who had moderate degrees of trench foot, without open cutaneous lesions, the flushing was seen to reach the distal portion of the extremities, the toes or fingers, in less than five seconds and subsided in one to two minutes.

In patients who had gangrene of one or more toes, reactive hyperemia was prompt in appearing (within five seconds in the uninvolved toes and tissue) and prompt in reaching maximal intensity. It was difficult to determine the subsidence of the reaction in this group inasmuch as

all had some degree of inflammatory flush surrounding the area of necrosis.

In a small group of patients who had severe degrees of cold injury, characterized by long, persistent and pronounced swelling but without gangrene, reactive hyperemia was delayed, appearing in from seven to twenty-one seconds, reaching its full intensity in thirty to sixty seconds and finally disappearing in five to six minutes instead of in one to two minutes. In still other patients who had marked cyanosis, the flushing was not uniform but blotchy. Such delayed and abnormal responses could be interpreted to indicate either organic change or vasospasm of the smaller vessels, or both. That the blood vessels in the blanched areas are capable of dilatation will be shown later.

Measured by their response to reactive hyperemia, the small vessels are involved clinically in only a small proportion of the cases of late trench foot.

3. On performance of the histamine flare test adequate wheals and flares were found uniformly even in the patients whose circulation appeared impaired during the hyperemia tests. From these studies it is clear that in trench foot the vessels of the skin are organically normal.

4. Study of the tissue circulation by means of the fluorescein test of Lange and Boyd, using a photo-electric cell as an indicator, showed that the circulation time (arm vein to foot) was approximately twenty-two seconds in patients who had trench foot both with and without gangrenous lesions. This is identical with the values obtained in a series of control patients hospitalized for other conditions and studied by the same technic.

5. Studies of cutaneous temperature were not carried out quantitatively. However, mention must be made of feet that are warm but yet cyanotic, a condition not at all rare in the late stages. This incongruous combination can be explained on the basis of an inflammatory reaction due to cold injury in the subcutaneous and deeper tissues which is masked by dilatation and stasis in the cutaneous venous channels, which are responsible for the skin color. That other factors, such as shunting of blood through arteriovenous anastomoses, also may contribute to this state of affairs is a possibility. The surface temperature of the feet in the vast majority of

our patients was generally quite cool, owing mainly, in our opinion, to evaporation of sweat.

Comment: The evidence presented shows that the blood vessels in cases of late trench foot for the most part are not organically involved. Nothing conclusive, however, can be said about functional changes which most certainly have to do with skin temperature, cyanosis and flushing. It is our belief, based only on clinical impression, that the small blood vessels are in a sensitized state, responding abnormally in a qualitative and quantitative sense to their usual stimuli. We have been encouraged in this belief by the appearance of a typical Raynaud syndrome in a few cases in which trench foot had developed approximately one year before. The appearance of such syndromes in men more than thirty years of age and in whom such phenomena had not been present previously leads to speculation as to the likelihood that in additional cases of this disorder such symptoms may develop in the next few years.

For the most part, the perpetuation of symptoms in late cold injuries depends on the slow resolution of a chronic sterile inflammatory process with fibrosis within the tissues rather than on organic changes in the blood vessels themselves. These changes have been demonstrated in the subcutaneous tissues, in the tendons, periarticular structures, in muscle, about the sweat glands and in perineural structures. It is no wonder then that the extremity in cases of late trench foot tends to be stiff, painful on weight bearing and swollen after exercise even when its clinical appearance is quite normal."

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Thomas J. Dry, M. B.,
Rochester, Minnesota.

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

COMING MEDICAL MEETINGS

Sixth Councilor District Medical Society, Texarkana, November 15th.

Arkansas Medical Society, Little Rock, April 17-19, 1947.

POWDERED PENICILLIN: ITS SURGICAL USES AND ADVANTAGES

GILBERT O. DEAN, M. D., F. A. C. S.
Little Rock

While in the Marine Corps, the author was forced to treat many cases of tropical otitis externa, better known to the island-bound G.I.'s as "fungus of the ears." After two years of unhappiness with this ubiquitous and persistent tropical disease, most satisfactory results were obtained by using a powdered mixture of penicillin, sulfathiazole, and boric acid. This mixture of powders was insufflated into the affected ears daily after the auditory canals had been cleansed or detritus and previously inserted medications.

The chief advantage of the powdered form of penicillin over an aqueous or glycerin solution of penicillin was the fact that the powdered penicillin retained its potency for a long time even though it was kept in a powder blower at room temperature. Another advantage was the tendency for the insufflated powder to remain in the ear without the necessity for inserting a wick or pack to hold it in.

The simplicity and effectiveness of using the handy powder blower in ear infections soon became the stimulus for the development of a form of penicillin powder which could be applied topically to many other types of infection or areas of potential infection. In spite of the advantages of using powdered penicillin, several difficulties were encountered in preparing a safe and stable powder mixture.

The chief handicap was found to be the extreme deliquescence of the penicillin powder. Within a few seconds after the cap was removed from a bottle of penicillin powder, the contents of the bottle became sticky and adherent due to the absorption of moisture from the air. It was found, therefore, that the only way to keep the penicillin powder from changing into an unwieldy gummy mass was to mix it immediately with another powder which was not deliquescent and which would serve as a solid vehicle for the process of insufflation.

One or more of the sulfa powders was used as the most satisfactory vehicle in the tropical areas; and the mixture of penicillin and sulfa powder was eventually used in all sorts of abrasions, fissures, lacerations, burns, ulcerations, Vincent's infections, conjunctival infections, strep-throat infections, and in traumatic and sur-

gical wounds. The results in these conditions were entirely satisfactory.

A standard powder blower was found to be the handiest apparatus for applying the powder mixtures. Recently Dr. Kersh at the Arkansas Children's Hospital discovered that he could dispense the powder mixture in a salt or pepper shaker which has the additional advantage that it can be autoclaved without damaging or leaving moisture in the apparatus. The powder blower, however, remains the best instrument for insufflating cavities and small wounds.

Although the sulfa drugs have a wide applicability, it is often inadvisable to use them in or on some wounds, on large burned or denuded areas, and on patients that have become sensitized to the sulfa radicle. The local use of penicillin in these cases, however, is usually of great value. The search has therefore been continued for a vehicle which will permit the use of penicillin insufflations without itself causing any tissue reactions.

The most innocuous substance yet tried as a vehicle is dried blood plasma. Surprisingly enough the dried plasma is very slightly deliquescent, and it is pulverized easily with a sterile mortar and pestle. In order to test its practicability, a powdered mixture of dried plasma and penicillin has been kept at room temperature in the open air for several weeks and has been found to be dry, potent, and ready for insufflation at the end of all test periods. One bottle of dried blood plasma has served to fill the powder blowers and other dispensers many times. One bottle of calcium penicillin is used each time the powder blower is filled.

More recently dried red blood cells have been tried and found to be extremely useful as a vehicle for the penicillin powder. Similarly to the dried plasma the dried red blood cells are only slightly deliquescent and they too can be ground into a fine dry powder. One great advantage of the dried red blood cells is their healing effect on chronic wounds. (1, 2, 3). It is thought that the dried red cells and dried plasma both have a hemostatic effect on oozing wounds. There is also good evidence that neither of these substances interferes with wound healing. A sterile powder mixture of penicillin, dried plasma and dried red blood cells has been insufflated into a large number of freshly lacerated wounds which were later observed to heal by primary intention.

In regard to the peritoneal cavity—two hun-

dred thousand units of penicillin powder have been placed in the peritoneal cavities of approximately fifty patients with no untoward results. In several cases of peritonitis the good results were phenomenal. It is safe, therefore, to insufflate a sterile powder mixture of penicillin and dried plasma into the peritoneal cavity or any other body cavity at any time that the surgeon feels that the topical application of penicillin is indicated. Such a powder mixture tends to dissolve immediately upon contact with the exposed tissues, and it does not entail the addition of more fluid to the area. If dried red blood cells prove to be non-irritating to the peritoneal and other serous surfaces, they too can be used in these cavities as part of the powder vehicle.

As a result of the experiences with various penicillin powder mixtures, it has become a routine at the Arkansas State Hospital for all open wounds, chronic leg ulcers, decubitus ulcers, abrasions, burns and the like to be dusted daily with a powder containing calcium penicillin, dried plasma, and dried red blood cells. Sometimes sulfathiazole is added to the powder mixture or sulfathiazole ointment is applied after the powder is dusted on the affected area. It is the impression of all attendants, nurses, and doctors caring for these patients that a marked improvement in the care of all infected wounds has resulted from such treatment.

Not all brands and types of penicillin are suitable for use in the powdered form. Many of the brands of sodium penicillin are so prepared that the penicillin is markedly adherent to the sides of the bottles and cannot be loosened for mixing. Most brands of calcium penicillin, however, and a few brands of sodium penicillin are prepared with the drug in the form of large, dry, flaky masses which can be removed in toto from the bottles. This dry flaky penicillin is considerably less deliquescent and is more easily ground and mixed with the vehicle powders than the other types. An effort is being made to ascertain which pharmaceutical companies are producing the types of penicillin best suited for use in the powder form.

The use of streptomycin (or any of the other new antibiotics) in the powder form is not yet

feasible; but when those drugs do become readily available, the possibilities of using them in the powdered form should not be neglected.

Conclusions

1. The local use of powdered penicillin has proved efficacious in many surgical and other disease conditions.

2. It is always necessary to use one or more powder vehicles with the penicillin powder because of the deliquescent properties of penicillin.

3. Dried blood plasma promises to be the most innocuous and most universally useful powder vehicle for penicillin powder mixtures.

4. Dried red blood cells, although perhaps not as innocuous as plasma, offer additional advantages as a powder vehicle.

5. The various sulfa drugs make excellent powder vehicles in conditions where their use is not contraindicated.

6. An ordinary powder blower or a salt or pepper shaker may be used for dispensing the powder mixtures.

7. The continued potency of the preparation and the ease with which it is handled constitute some of the advantages of a powdered penicillin mixture over other forms of penicillin.

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OBITUARY

JAMES ISAAC THOMPSON, age 88 years, died at his home in Yellville September 11th. A graduate of the University of Arkansas School of Medicine in 1892, he had practiced in Marion County for his entire professional life.

JOHN S. AGAR, JR., age 36 years, Little Rock, died October 15th of a heart attack. A graduate of the University of Arkansas School of Medicine in 1934, he took special training at Washington University School of Medicine for three years following graduation in his specialty of eye, ear, nose and throat. During World War II he served with the naval medical corps and participated in the Tarawa and Saipan campaigns with the Second Marine Corps Division, receiving a commendation for bravery in action. He returned to private practice in April, 1946. Surviving him is his brother, Dr. Drew F. Agar, of Saint Louis.

LOUIS SHARP DUNAWAY, JR., age 46 years, died at his home in Conway September 18th. Born in Conway, September 3, 1900, he attended the public schools of that city and graduated from Arkansas State Teacher's College in 1923. For two years following graduation he was engaged as a teacher, entering the University of Arkansas School of Medicine to graduate in 1929. Following an internship at the Baptist State Hospital in Little Rock, he began practice in Conway, being joined later by Dr. Edwin C. Dunaway and W. L. Brittain. He entered military service August 1, 1942, and served at various stations in the United States until his discharge March 24, 1944, when he returned to practice at Conway. He was married to Miss Ruth Davidson who, with a son, survives him, on May 4, 1933. He was a member of the Kiwanis Club, the Baptist Church, the Faulkner County Medical Society, the Arkansas Medical Society and was a Fellow of the American Medical Association.



TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

IT IS NOT generally recognized that tuberculous patients have a unique opportunity for constructive thinking and study while relaxing and resting their bodies. Although physical activity is restricted in the treatment of tuberculosis it is possible for the patient, through directed education under medical supervision, to leave the hospital better equipped to face life than when he entered it. This process of education is known as rehabilitation, which has been defined as the restoration of the handicapped to the fullest physical, social, vocational and economic usefulness of which they are capable.

REHABILITATION OF THE TUBERCULOUS

Rest is fundamental in the treatment and cure of tuberculosis. The period of rest usually lasts for many months and it is during this time that the rehabilitation of the patient should begin. This may mean the planning of a completely new mode of life. Almost always it also includes some kind of productive work in order to earn a living. Since rest, with only a limited amount of physical effort, is necessary to regain health and to continue in health, the new life must bring to the patient the maximum of financial return with a minimum amount of physical effort.

This can be accomplished most easily by improving the patient's knowledge and education. The fact that a patient is lying in bed resting his body does not mean that his mind is at rest. It is natural for him to worry about the future, and now is the time for rehabilitation to begin. If the mind is occupied with constructive thinking, the patient's physical condition improves more quickly, and a plan for his future may be evolved. Constructive reading and study are part and parcel of rehabilitation.

A young laborer admitted to the hospital with tuberculosis came to realize he would never again be able to do hard physical labor. He was intelligent and cooperative, so he studied, read and took a correspondence course while in bed. Later when his disease was cured he was able to qualify as boss of the laborers and soon afterwards he became a contractor.

Surprisingly many people have a latent unrecognized ability which the rest period brings out. As they relax they think and from this comes creative impulses. Many of the world's geniuses have been men and women with tuberculosis. Is the genius due to some mysterious action of the tubercle bacillus? Or is it due to the rest and the opportunity to think? Scientists are uncertain, but it would seem that the long enforced period of relaxation and the consequent opportunity to think, to meditate and to take stock of one's abilities might be the real answer.

The mind continues to function while the body is resting, in spite of all efforts to keep it quiet. If it is directed toward constructive thinking, a fuller, happier life will result. The more information and intelligence a person has, the more valuable a worker he becomes. There is no reason why the thoughtful patient should not gain from his enforced rest. Incidentally his future health is protected by rehabilitation because he has learned to utilize his mind and to conserve his physical strength. In many tuberculosis hospitals, courses in high school subjects and reviews in elementary studies are given. These are considered as important as food, rest and surgical treatment.

Occupational therapy focused on arts and crafts is not entirely adequate. For, although it keeps the patient's hands and mind occupied while in the hospital, it brings little financial return, and rarely leads to a future occupation for the patient. Today we speak of vocational therapy, which means treatment of the patient's mind through preparing him for a vocation which

he can utilize when he is ready to return to the competitive world.

Men and women with tuberculosis do not differ essentially from men and women who are not ill. But their disease imposes upon them restrictions and problems from which the well man is free. It is with these problems and restrictions that the rehabilitation of the tuberculous deals.

Rehabilitation is a process of education by means of which the patient arrives at the best possible adjustment to his handicap. While this adjustment may be achieved alone, it is one which is achieved more easily with help and direction.

There are four aspects of the rehabilitation of the tuberculous: medical, psychological, social and economic. On the medical side, the patient should have an intelligent knowledge of tuberculosis and of his own disease. He should know that even a small amount of infection demands a great amount of care. He should learn about curing, and how to cooperate with the nurses and doctors. Although he wishes to be active as soon as possible, he must learn that the physician alone can decide when his rehabilitation is to start.

The psychological aspect is perhaps the most difficult and one of the most important. The patient learns that tuberculosis is a recurrent disease and this usually frightens him. He worries over possible ostracism because people fear tuberculosis. He is separated from normal daily contacts. For these reasons this period should not be empty of incentive, plans and hopes. Bed rest by itself will not produce relaxation, nor is there any speedy road to recovery. It requires a seemingly endless amount of courage, perseverance and understanding.

The social problems will range from the boy or girl required to leave school or college to the family losing its wage earner; and from the ill worker who believes his job too good to leave to the patient willing to go to the hospital but forced to remain on a long waiting list for a bed.

Lessened earning power is costly not alone to the individual but also to the community. Hospitals bear a share of the costs of the illness, but society as a whole pays the bills. Skill in any line of work grows rusty during long periods of illness, and this human asset is one that business and the community can ill afford to lose.

Rehabilitation works with the individual and with the community to convert ill-founded fear

into well-founded hope. It works under medical advice and on the basis of total physical, mental and emotional capacities, building a practical program of activity. It makes use of all available resources toward an eventual life plan compatible with the patient's health, interests, abilities and ambitions. The community must be taught that although rehabilitation does cost money, the lack of it costs more, not alone in illness, but in dollars and cents.

RANDOM THOUGHTS OF THE SECRETARY

September 24th. With its maker sweating things out before a Congressional committee, we drive a Kaiser today, a car with the most "get-away" we have ever handled.

September 25th. "Truman Says No Need to Remove Meat Controls." We bet he talked out of turn again!

September 26th. Today with the Cancer Commission in Little Rock with discussion of further extension of cancer control in the state and homeward by Braniff in a slightly choppy atmosphere.

September 28th. Not only did the Razorbacks win a moral victory over the Oklahoma Aggies today; they gave the downtown quarterbacks the choicest arguments ever on throwing a forward pass in those last few minutes.

October 3rd. With Jim Amis as traveling companion across the Ouachitas and down to Camden along a fairly familiar air lane and greeting the goodly attendance at the Fifth Councilor meeting, visiting briefly with Rinehart, forced to remain at home but enjoying life for all that.

October 4th. Over the top, Gurdon to Booneville, and down again at home in fifty-five minutes this morning, additional evidence favoring air travel to which we are fully committed.

October 7th. Viewing the motion picture on the care of wounds of violence which, to our untutored eyes, goes a long way in the provision of care to trauma.

October 8th. By special SCAT plane come Mahoney, Hollenberg and Hames, a gala occasion, with Mahoney and Hollenberg presenting one of our better Sebastian County Society programs.

October 12th. Visiting Skinner in Pittsburg, Kansas, today, greatly profiting in our observation of a master engaged in the art and science of medicine as applied to radiology.

October 14th. Our president may be sincere as Lockwood insists but when it comes to meat controls it cannot be denied that he is reversible.

October 19th. Miss Houston marries today, and to those who know, this means that Earle Hunt will be forced to retire from the practice of medicine.

October 20th. Meeting with the cancer committees today, a good job of long-range planning being the net result, but we want to go on record as not craving a round-trip automobile drive to Little Rock again.

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VETERANS ADMINISTRATION MEDICAL CARE PROGRAM

The Committee on the Veterans Administration Medical Care program is continuing its work to complete the plan in detail for application in Arkansas. Several meetings have been held for the purpose of making a fee schedule and it is probable that this schedule will be completed at a meeting to be held November 14th. Upon completion of the fee schedule and approval by the Veterans Administration, the plan will be placed in effect in Arkansas. The attention of members who have not furnished the form signifying their desire to participate in the program is called to the necessity of completing this form if they desire to be designated by the Veterans Administration as participating physicians. Five hundred forms were mailed during October to physicians who did not return a form on the original mailing in July and, to date, there has been a good response to this mailing. Physicians who do not have the form in their possession may obtain one by writing the state secretary.

ROSTER OF MEMBERS

The annual roster of members, usually published in the November issue of The Journal, has

been deferred for publication in the December issue. An unusual number of relocations and the difficulties incident to reporting final location of members who have been released from military service prompts this delay in the effort to provide a more accurate roster for the year. It is contemplated that the December Journal will contain a digest of Arkansas laws of interest to physicians, the Constitution and By-Laws of the Arkansas Medical Society and other material which will prove of value as a reference source to the membership.

PROCEEDINGS OF SOCIETIES

The Fifth Councilor District Medical Society met at Camden October 3rd for the following program: "The Surgical Treatment of Subphrenic Abscess," P. M. Ramey, Temple, Texas; "Recent Advances in the Treatment of Carcinoma of the Cervix," C. A. Stevenson, Temple, Texas, and "Legislative Trends," H. King Wade, Hot Springs National Park. The Society will next meet at El Dorado in January, 1947.

R. B. Robins, Secretary.

The Craighead-Poinsett County Medical Society was addressed October 2nd by J. C. Faris, Jonesboro, on "The Rh Factor."

J. H. McCurry, Secretary.

The Benton County Medical Society met in dinner session with R. J. Highfill, Cave Springs, October 10th. J. L. Pickens, Rogers, presented "The Larynx."

Geo. M. Love, Rogers.

The Union County Medical Society recently met in dinner session at the home of Dr. and Mrs. D. E. White, El Dorado. R. B. Robins, Camden, addressed the meeting on "Modern Hints in General Surgery."

M. V. Russell, President.

The Sebastian County Medical Society was addressed October 8th by E. C. Moulton, Fort Smith, "Leiomyoma of the Iris"; Paul L. Mahoney, Little Rock, "Diseases of the Esophagus," and Henry G. Hollenberg, Little Rock, "Surgery of the Esophagus."

D. W. Goldstein, Secretary.

The First Councilor District Medical Society met in dinner session at Jonesboro October 15th for the following program: L. D. Massey, Osceola, "Allergy"; R. M. Stuck, Denver, "The Sur-

gical Treatment of Facial Pain"; Otis Warr, Memphis, "Digitoxin," and Clyde Croswell, Memphis, "Rheumatic Fever in Children." Joe Verser, Harrisburg, was elected president, and O. H. Clopton, Rector, was elected vice-president. The spring meeting of the society will be held in Tyronza. J. H. McCurry, Secretary.

PERSONALS AND NEWS ITEMS

H. W. Savery has been elected surgeon of the Van Buren post, American Legion.

R. B. Robins, Camden, recently attended clinics in Chicago and the International College of Physicians in Detroit.

O. B. Barger, formerly of Mountain Home, has been released from military service and has located at Harrisonville, Missouri.

H. King Wade addressed the opening session, and Chas. T. Chamberlain, Fort Smith, served as toastmaster at the session of the National Association of Clinic Managers held in Hot Springs National Park during September.

L. J. Kosminsky, Texarkana, attended the San Francisco session of the American Legion.

A. C. Kolb, Little Rock, addressed the Fort Smith Exchange Club September 27th on "The Role of Psychiatry in Every-Day Living."

John T. Gray has been elected surgeon of the Little Rock post of the American Legion.

A. A. Blair and J. E. Johnson, Fort Smith, have been elected president and counselor, respectively, of the Sebastian County Tuberculosis Association.

I. F. Jones, Fort Smith, attended the Inter-State Postgraduate Assembly in Cleveland during October and later visited clinics in New York and Philadelphia.

J. W. Kennedy, formerly of Prescott, has been released from military service and has located at Prescott.

H. King Wade, Hot Springs National Park, H. Fay H. Jones, G. W. Reagan and John N. Roberts, Little Rock, attended the South Central Branch of the American Urological Society at

Hot Springs National Park, September 29th-October 2nd.

Lamar E. Alford, formerly of State Sanatorium, has accepted appointment as director of clinical laboratory and roentgenology at Puumale Hospital, Hilo, Hawaii.

Dr. and Mrs. Fred Hames, Pine Bluff, spent a recent vacation in Wisconsin.

A. C. Watson, Jr., is now associated with C. C. Reed at 705 Donaghey Building, Little Rock.

Carl L. Wilson, Fort Smith, and Chas. S. Padlock, Fayetteville, attended the recent meeting of the South Central Branch of the American Urological Association in Hot Springs.

H. King Wade, Jr., Hot Springs National Park, now stationed in Korea, has been promoted to captain.

The following attended the September meeting of the Central Association of Obstetricians and Gynecologists in Chicago: Chas. R. Henry, Glenn Johnson and Eva Dodge, Little Rock, and J. K. Walker, Pine Bluff.

C. A. Archer, Jr., Conway, H. E. Mobley, Morrilton, W. Decker Smith, Texarkana, R. B. Robins, Camden, and J. Harry Hayes, Donald Hayes and Carl A. Rosenbaum, Little Rock, attended the recent session of the International College of Surgeons in Detroit.

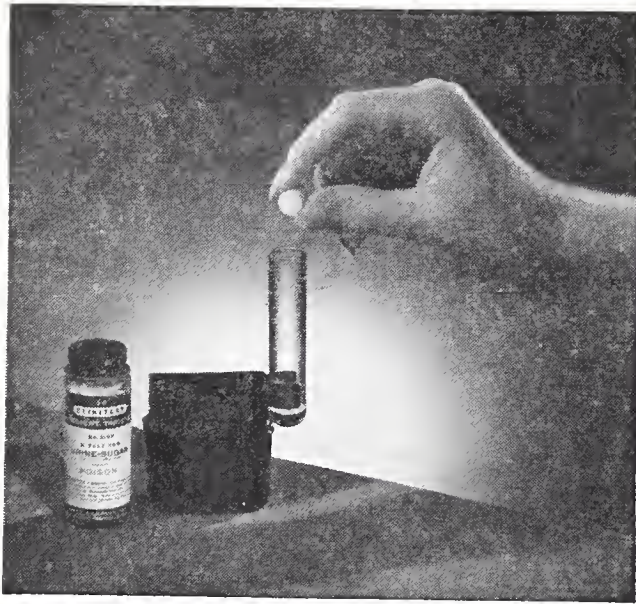
Dr. and Mrs. D. W. Goldstein, Fort Smith, spent a recent vacation at Edgewater Gulf, Mississippi.

Paul L. Mahoney and W. J. Schwarz, Little Rock, and L. Murphey Henry and E. C. Moulton, Fort Smith, attended the recent meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago.

C. A. Archer, Jr., Conway, attended the recent meeting of the International College of Surgeons in Detroit.

Henry G. Hollenberg, H. W. Hundling, and Paul L. Mahoney, Little Rock, hunted South Dakota pheasants in October.

A. C. Kolb has been appointed to the staff



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Art B. Martin, Ralph E. Crigler and W. L. Shippey, Fort Smith, attended the Kansas City Southwest Clinical Society meeting in October.

A. F. Hoge, Fort Smith, spent a recent vacation in Virginia.

WOMEN'S AUXILIARY NEWS

Members of the Auxiliary of the Sebastian County Medical Society met October 16th for luncheon, with the president, Mrs. Fred H. Krock, and Mrs. Davis W. Goldstein, hostesses, and with Mrs. Krock presiding at the meeting.

The luncheon was the first meeting since summer suspension and Auxiliary members discussed informally suggestions for the year's program of activities. Mrs. W. R. Brooksher, commander of the Arkansas Field Army, gave a review of the last year's program and discussed plans for the future.

Members in attendance in addition to Mrs. Krock, Mrs. Goldstein and Mrs. Brooksher were Mrs. Kenneth Thompson, Mrs. M. E. Foster, Mrs. A. D. Martin, Mrs. H. C. Dorsey, Mrs. H. H. Smith, Mrs. S. J. Wolferman, Mrs. W. L. Shippey, and Mrs. Prentiss E. Ware.

The Woman's Auxiliary to the Pulaski County Medical Society held the first meeting for the year 1946-1947, Wednesday, October 16, 1946, at the home of Mrs. Charles R. Henry, 4 Armistead Road. Co-hostesses were Mrs. H. W. Hundling, Mrs. Paul Mahoney, Mrs. Ewell I. Thompson, Mrs. H. Fay H. Jones, Mrs. Vernon Newman and Mrs. W. J. Schwarz.

After a delicious turkey luncheon, the meeting was called to order by the president, Mrs. Mason Lawson, at 1:30 p. m. There were 68 members and guests present.

Mrs. Lawson asked that members of the Auxiliary inform themselves about socialized medicine and be prepared to help with legislation against it.

The minutes of the May meeting were read, corrected, and approved.

Recommendations from the Executive Board meeting were read and approved. They were that the budget from the Finance Committee be accepted and that more money be raised for the Student Loan Fund.

Mrs. J. K. Donaldson distributed the year-books to members present.

Mrs. Donald Dykstra introduced new members who are Mrs. A. C. Kolb, Mrs. W. M. McRae, Mrs. Robert Turnbow, Mrs. Jerome Levy, Mrs. Alvin Strauss, Jr., and Mrs. Edwin Gray. New members sending their duties were Mrs. James Newbill, Mrs. Mahlon Prickett and Mrs. T. T. Ross.

Mrs. Robert Turnbow reported that "Medical Dames" has 60 members and that they appreciate the interest shown by the Auxiliary. Members of the Auxiliary have offered their homes for meetings for "Medical Dames" and, also, they have been given a list of our programs for their use.

Mrs. Paul Fulmer announced that our next meeting would be November 26 with the Greater Little Rock Federation of Women's Clubs at the Woman's City Club at 2 p. m., and that Mr. G. G. Fulmer would speak on "Legislative Medicine."

Mrs. Robert Jones reported that a Cancer Control booth was conducted at the Trade Show and that a film on cancer was being shown at the Livestock Show.

Mrs. C. E. Oates announced that each Federated Club would be invited to sew at the University Hospital one Wednesday during the year. It was decided that the Auxiliary would sew one Wednesday after the Christmas holidays.

In her report from the City Federation meeting, Mrs. C. E. Witt said that all clubs were asked to help with entertaining the patients at Ft. Roots. Volunteers from the Auxiliary were obtained to help with this work.

Mrs. Carroll Shukers reported that the goal of her Hygeia Committee is to get 100 new subscriptions to Hygeia.

Mrs. Charles R. Henry gave a report from the State Legislative Committee. She discussed the different types of prepaid medical care.

Mrs. J. K. Donaldson introduced Mrs. Gus Allison, our guest speaker for the afternoon. She reviewed "Britannia Mews" by Margery Sharp.

The meeting adjourned.

Buy Victory Bonds

The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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ROY CARL YOUNG, M.D., Medical Director

A. LAURIE YOUNG, Manager



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With the development of Tridione, children handicapped by frequent petit mal, akinetic and myoclonic seizures are offered new hope of attaining a more normal life. A product of Abbott research, Tridione has been tested thoroughly in clinical practice and has been found to give immediate and lasting benefits in numerous petit mal cases *not helped by other forms of medication*. For example, in one group of 50 patients who had not responded to other treatment, Tridione brought a cessation of seizures in 28 percent, reduced the seizures to less than one-fourth of the usual number in 52 percent, and had little or no effect on 20 percent. In some instances, the seizures once stopped *did not return* when medication was discontinued. Tridione also has been shown by clinical tests to produce beneficial effects in the control of certain psychomotor cases. Tridione is supplied in 0.3-Gm. capsules in bottles of 100 and 1000. Literature on request. ABBOTT LABORATORIES, North Chicago, Illinois.

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No. 7

MEDICAL LICENSURE IN ARKANSAS

Five examining boards, one inactive, are provided for in the Arkansas statutes. Each board comprises a member from each Congressional district with the exception of the eclectic, the requirement for membership on this board having been changed by Act 46 of 1945. Members of this board may now reside at any location in the state and may be appointed to office to succeed themselves any number of times as may be recommended by the Arkansas Eclectic Medical Association. For the other boards, members shall be appointed for a term of four years from a list of names submitted by the respective societies and no member shall be appointed for more than two terms in succession.

In 1929 the State Legislature passed the Basic Science Law and no person is now admitted to examination or reciprocity by the various boards without having first secured a certificate from the Arkansas Basic Science Board. The Secretary of the Basic Science Board is Dr. L. E. Gebauer, Donaghey Building, Little Rock.

In 1935 the State Medical Board of the Arkansas Medical Society was authorized to recognize and to license a physician who held the certificate of the National Board of Medical Examiners. (Act 165, 1935).

Refusal or Revocation of License

The boards may refuse to grant, or may revoke a license previously granted, for the following causes:

- (a) Chronic and persistent inebriety;
 - (b) Practice of criminal abortion;
 - (c) Conviction of crime involving moral turpitude, which latter term, while inadequately defined by the courts, has been held to mean offenses which are wrong in themselves aside from being prohibited by law;
 - (d) Publicly advertising special ability to treat or cure chronic and incurable diseases;
 - (e) Representation to the board of any license or diploma, illegally or fraudulently obtained, or fraud or deception in passing the examination.
- By virtue of Act 342 of 1939 the various State Medical Boards were given the power to

revoke or refuse a license upon the ground that the applicant is not a citizen of the United States. This is in addition to previous grounds upon which a license could be revoked or refused.

Act 409 of 1941 provides that a physician, surgeon or a person practicing medicine guilty of violation of the moral turpitude statute is subject to having his license suspended or revoked by the court in addition to the criminal penalties. However, in the event the court before whom such person is tried and convicted declines to suspend or revoke the license, then in such event the Medical Board shall have the power to suspend or revoke the license.

Grounds for Revoking License

When any doctor shall by the habitual indulgence in the use of alcohol or narcotics, to such an extent as to render himself incapable thereby of exercising that degree of skill and judgment in the treatment of his patients which the moral trust and confidence reposed in him demands, he shall be deemed guilty of a misdemeanor; and his license shall at once be revoked by the board of medical examiners, upon the proper proof being made to it, said license not to be renewed under one year, and not then until said doctor shall furnish satisfactory evidence of having ceased his indulgences.

Record of Certificate

Every person holding a license to practice, issued by any board, shall have it recorded in the office of the county clerk where he is practicing or proposes to practice. To prevent delay any member of the board representing the school of medicine from which the applicant graduated, may grant a temporary permit to practice, but it shall not remain in effect longer than the next regular meeting of the board.

The penalty for failing to so record the certificate before practicing is from \$25 to \$500 in the discretion of the court.—Section 8246, Crawford & Moses' Digest, Act 485, 1921.

Itinerant Vendors of Drugs

Any itinerant vendor of any drug, nostrum, ointment or application of any kind, intended for the treatment of disease or injury, or who may, by writing, print or by other methods pro-

fess to cure or treat diseases or deformity by any drug, nostrum, manipulation or other expedient, shall be punished as provided above.

Who Are Practitioners

Any person shall be regarded as practicing medicine, in any of its departments, who shall append M. D., or M. B., to his name; or repeatedly prescribe or direct, for the use of any person, any drug or medicine or other agency for the treatment, cure or relief of any bodily injury, deformity or disease. This shall not apply to midwife, or to any person who administers domestic remedies without compensation.

Record of All Licenses

Act 148, 1935, provides that a record shall be made in the office of the Secretary of State of all licenses that have been issued by any of the five boards within the preceding 20 years. It provides further that within one week of the issuance of a license, that fact shall be made known to the Secretary of State, who shall thereupon record that information in a book kept for that purpose in his office.

The state health officer is required to furnish to the Secretary of State the fact of the death of any licentiate when it occurs.

The State Medical Board of the Arkansas Medical Society

Dr. Robert J. Haley, Jr., Paragould, President (1947).

Dr. Robert Hood, Russellville, Vice-Chairman (1947).

Dr. L. J. Kosminsky, Texarkana, Secretary (1947).

Dr. J. B. Jameson, Camden (1949).

Dr. J. T. Matthews, Heber Springs (1949).

Dr. John M. Proctor, Hot Springs (1949).

Dr. W. H. Poynor, Harrison (1949).

Rules and regulations concerning licensure by reciprocity and examination:

The applicant must be a citizen of the United States (first papers not accepted).

The applicant must be a graduate of a Class "A" medical school, approved and recognized as such by the American Medical Association.

The applicant must reciprocate on the basis of ORIGINAL license.

The applicant must have a certificate showing that he has passed the Arkansas Basic Science Board.

A recent photograph of the applicant, size 3 x 5 inches, must be attached to the application, and sworn to before a notary-public.

The minimum fee for reciprocity is \$50 and the maximum fee is \$100, this fee depending on the state in which the applicant's original license was issued.

The fee for primary examination is \$15.

The fee for final, or the last two years, examination is \$10.

The fee for the complete examination is \$25.

The fee for certification is \$15.

The applicant must be a physician of good moral standing as well as in good standing with the medical societies of every state and county in which he has resided.

The State Medical Board of the Arkansas Medical Society is empowered by Act 368 of the Acts of 1941 to fix fees for physicians' licenses with the fees being fixed not less than 60 days prior to the 1st day of January of each year. Failure to pay fees prior to the 1st day of March suspends the physician's license, and failure to pay three years' fees revokes such license, subject to reinstatement where the physician has the same qualifications required for an original license. Funds realized from licenses are authorized for use in the publication of the medical practice act, compilation of physicians, investigations of violations, and for purposes directed by the Board.

The total fee for an examination for license is set at \$25 and the applicant must present evidence of graduation from a school approved by the Council of Medical Education of the American Medical Association, the Council of Medical Education of National Eclectic Medical Association, or the American Institute of Homeopathy.

Where a license is granted under provisions of reciprocity with other states the fee for such license is set at an equal amount to that set by the state of the original license, subject however to the minimum fee being \$50.

Chiropractic

A chiropractic license entitles the holder thereof to "adjust by hand the displaced segments of the vertebral column and any displaced tissue in any manner related thereto for the purpose of removing any injury, deformity or abnormality of human beings."—Section 8276, Crawford & Moses' Digest.

"The Board shall have authority to grant reciprocity with states having equally high literary professional requirements as provided in this state."—Act 485, 1921.

Gantt Act; Prohibiting Solicitation

An Act approved April 29, 1903, commonly known as the Gantt Act, prohibits the employment of solicitors to secure medical practice. It also prohibits the advertising of the practice of medicine by untruthful or improbable state-

ments, and the promise or assurance that a manifestly incurable disease is curable.

That law also provides that conviction of a crime involving moral turpitude, or the performing of an abortion, or aiding in the commission thereof, shall be grounds for revocation of license.

When a license is revoked an appeal may be taken therefrom, but the former holder thereof shall not, pending the appeal, be permitted to practice, and if he does so he shall be punished in the same manner as if he had never had any license to practice.

After the expiration of one year from the date of revocation of license, he may appeal to the proper medical board for a new license.

In 1941 Act 63 was passed pertaining to chiropractors. The provisions of this Act required all chiropractors not practicing prior to January 15, 1940, or licensed by the State Board of Chiropractic Examiners to be examined by the Board of Examiners in Basic Sciences before they can secure a license. Moreover, the provisions of the malpractice act was also applied to chiropractors.

Osteopathy

The applicant for a license shall furnish evidence to the Board that he has attended for not less than four years of eight months each session, at a college of osteopathy, "recognized" as a reputable school, wherein the curriculum of study shall include: Anatomy, histology, physiology, pathology, bacteriology, gynecology, obstetrics, pathology, bacteriology, gynecology, obstetrics, chemistry, toxicology, symptomatology, surgery, hygiene and dietetics, and diagnosis.

"The certificate provided for in this Act shall not authorize the holder thereof to prescribe or use drugs in the practice of osteopathy, or to perform major or operative surgery."—Section 8268, Crawford & Moses' Digest.

An applicant to practice osteopathy is required by Act 340 of 1941 to pass an examination before the Board with a grade of 75 or better and furnish evidence of attendance at a college of osteopathy for four years with terms of nine months. Previously the term requirement was only eight months.

The fees of the applicants were raised from \$20 to \$35 none of which is returnable if the applicant fails, and new fees must be paid to take subsequent examinations.

CLAIMS AGAINST ESTATES

In 1931 claims against estates were re-classified so as to make claims of doctors during the last illness, first-class claims. Prior to that Act (Act 211, 1931) the only first-class claims were those for funeral expenses.

That Act provides that first-class claims shall be funeral expenses, wages of servants, and demands for medical and surgical attention, nursing and hospitalization during the last illness.

If there are insufficient assets in the estate, then a like percentage is to be paid to each of the enumerated kinds of claims.

LIEN LAW

A lien is a hold or claim which one person has upon the property of another as security for some debt or charge; or it may be defined as a charge imposed on specific property by which it is made security for the performance of an act.

Act 130, 1933, provides that doctors, nurses and hospitals shall, on compliance with its terms, have a lien "for the value of the services rendered or to be rendered" at the express or implied request of that patient injured through the fault of a third person, on any claim, right of action, or money, to which the patient is entitled because of his injuries.

A physician, nurse or hospital may establish his lien in either of two ways, or both: He may serve on the patient a written notice of claim, to be later described. He must serve a copy of that notice on each person or corporation against whom the patient has a claim arising out of his injuries (1) on the person alleged to be responsible for the injuries, (2) or on the patient's insurer, or on both.

Claimant of a lien must then file in the office of the clerk of the circuit court, in the county in which the services are being rendered, a copy of the notice he has served, verified by affidavit, to the effect that the notice and the required copy thereof have been served. The claimant need not wait until his services have been completed before he serves the notice and copies thereof after his first call, and thus preserve his interest intact. If he serves such notice and copies thereof before the completion of his professional service he must, on the completion of his service, serve a supplementary notice on the parties designated above, and file a copy of that notice in the office of the circuit clerk.

If a patient has instituted an action to recover damages against the wrongdoer, or against any insurer, the claimant may file with the clerk of

the court where the action is pending a notice of the physician's claim of lien, authenticated under oath. If a physician does this he need not serve a notice on the patient, or on the wrongdoer, or insurer, although there is no reason why he should not do so if circumstances so indicate. A suit may have been filed, for instance, against the wrongdoer, and yet the patient may have a claim against his own insurer that is in no way related to the suit. In that case it may be expedient for the physician to file a notice of his lien with the insurer, notwithstanding the fact that he has previously filed a notice with the court.

The notice shall contain these facts: (a) On whose behalf it is filed, and whether he claims as a practitioner, nurse or hospital; (b) The name and address of the person through whose fault the injuries were inflicted, and if a lien is claimed against an insurer, the name and address of that insurer; (c) The name of the patient, his usual address, and his whereabouts when the notice is served, if elsewhere than at his usual address; (d) The time when, place where, and circumstances under which the alleged fault or neglect of the wrongdoer occurred, and the nature of the injury; (e) If the services have been completed, the amount for which his lien is claimed. The notice must be supported by an affidavit of the claimant showing that the facts stated of the affiant's own knowledge are true, and that the facts stated on information and belief, he believes to be true.

If the services have not been completed when the notice is served, and the amount for which a lien is claimed is therefore not stated in the notice, the claimant must, within 60 days after the termination of his service, serve a supplementary notice on each person previously notified, and again file a copy of the notice in the court in which the previous notice was filed, showing the amount claimed under the lien.

The notice need not be in any particular form; it is sufficient if it contains the essentials noted above. It may be served in the following ways:

(a) A notice may be delivered to the person on whom it is to be served, or left at his usual place of business or residence with some person of mature years employed or dwelling there.

(b) A notice may be delivered by registered mail, directed to the last known address of the person to be notified, which may be either within or without the state of Arkansas. At the time of mailing, someone having personal knowledge of the facts should make an affidavit that the notice required by the "medical, nursing and hospital lien law" has been enclosed in the

letter. When the letter is mailed, a return receipt should be requested, which receipt should be retained as evidence.

A lien once established will afford a certain amount of protection to the claimant. Any person through whose fault the patient was injured, and any insurer by whom the patient is insured against injury resulting from accident, who, after receiving notice of a claim of lien, pays to the patient the full amount of the patient's claim, if that physician has not received the amount due, will be liable to the physician who has established a lien on the patient's claim.

If a lien has been established by filing a claim in an action instituted by the patient against the person through whose fault he was injured, or against the patient's insurer, and if the action be decided in favor of the patient, the court will embody in its judgment such an award to the claimant as the evidence warrants.

Suit must be filed within 60 days if his claim be not voluntarily settled. The claimant must within 60 days immediately following the day on which the latest notice or supplementary notice of his claim for lien has been filed in the office of the clerk of the circuit court, institute suit to enforce his lien. Otherwise it becomes void.

Physicians will have to use their best judgment in determining the cases in which they will undertake to perfect liens. Probably a physician will not ordinarily attempt to perfect a lien unless he has grave doubts as to whether or not, without the aid of the lien, he will ultimately receive his fee. The expediency of filing a claim of lien in a case in which the amount involved is small should be carefully considered. If a claim be filed, it will lapse within 60 days after the filing of the last notice in the office of the clerk of the circuit court unless the physician institutes an action to enforce the claim. To institute an action it will be necessary to employ counsel and to pay court charges. When the amount involved is small, therefore, a physician will probably, if he files a claim of lien at all, do so without the expectation of undertaking to enforce it by action at law.

(FORMS)

Affidavit to Be Attached to Copy of Claim Filed With Circuit Clerk

STATE OF ARKANSAS,

.....County.

I,, being first duly sworn, depose and say that of my own personal knowledge the within and foregoing instrument of writing is a full, true and perfect copy of a

notice and claim of lien served on the..... day
of 193....., on.....
and on and on
(Signed)
Subscribed and sworn to before me this.....
day of 193.....
.....
Notary Public.

Supplementary Notice of Claim of Lien

The undersigned,
states that heretofore and on the..... day
of 193....., he caused to
be served upon..... and
..... and.....
a notice of claim of lien as a practitioner, by
reason of services rendered to
(hereinafter referred to as "patient") whose usual
address is in the city
of....., Arkansas, arising
out of an injury suffered by said "patient" on
the..... day of 193.....
at....., Arkansas, at which
time and place said "patient" was injured under
the following circumstances:
....., the
nature of said injury being as follows:
.....
Said injuries were inflicted through the fault
and negligence of....., whose
address is
Said "patient" was at the time of said injury
insured by.....
This is a supplementary notice of lien (filed
under and pursuant to Act No. 130 of the 1933
laws of Arkansas) and the undersigned claimant
states that between the..... day of.....
193....., and the..... day of..... 193.....
he performed services as a practitioner for said
"patient" to the reasonable value of \$....., for
which amount he claims and asserts a lien in his
favor.

STATE OF ARKANSAS,

..... County.
BE IT REMEMBERED, That on this day before
me, a Notary Public, within and for the above
named county and state, personally appeared
....., to me well known, and
who in my presence executed the within instru-
ment, and then and there stated that the facts
stated herein of affiant's own knowledge are
true, and that the facts stated on information
and belief he believes to be true, and that the
reasonable value of the services so rendered by
affiant is the sum of \$.....

WITNESS my hand and official seal on his
day of 193.....
.....
Notary Public.

Notice of Claim of Lien

To.....
YOU WILL TAKE NOTICE that the under-
signed whose address
is in the city of.....
Arkansas, has and asserts a claim of lien as a
practitioner, by reason of services rendered, and
to be rendered to (herein-
after referred to as "patient"), whose usual ad-
dress is in the city of
....., Arkansas, and this notice being
served upon him at..... in the city of
....., Arkansas; arising out of
an injury suffered by said "patient" on the.....
day of..... 193....., at.....
....., Arkansas, at which time and place
the said "patient" was injured under the fol-
lowing circumstances:
..... the nature of said
injury being as follows:

Said injuries were inflicted through the fault
and negligence of....., whose
address is

Said "patient" was at the time of said injury
insured by.....

The amount for which a lien is claimed by the
undersigned is the sum of \$..... (a).

The services rendered and to be rendered
under the circumstances set forth above have
not been completed, and therefore the amount
for which a lien is claimed cannot be stated
herein (b).

A lien as above set forth is claimed under and
pursuant to the provisions of Act No. 130 of the
1933 laws of the State of Arkansas.

STATE OF ARKANSAS,

..... County.
BE IT REMEMBERED That on this day, before
me, a Notary Public, within and for the above
named county and state, personally appeared
the within named to
me well known, and who in my presence executed
the within instrument, and then and there stated
that the facts herein stated of affiant's own
knowledge are true, and that the facts stated
on information and belief, he believes to be true.
WITNESS my hand and official seal as such

Notary Public on this day of,
193

.....
Notary Public.

The paragraph followed by an (a) above should be crossed out when the claim is filed before the services have been completed.

If the services have been completed, the amount thereof should be filled in, in paragraph (a), and paragraph followed by (b) should be crossed out.

Prior to the enactment of this law a person injured by another could make a settlement with the wrongdoer, and then refuse to pay either the doctor or the hospital, as neither of them had any lien or "hold" on the proceeds of the settlement or judgment.

ACTIONS AGAINST DOCTORS FOR MALPRACTICE

Act 135, 1935, provides that no malpractice suit may be brought later than three years after the alleged wrongful act was committed. In the case of *Burton vs. Tribble*, 189 Ark. 58, the Supreme Court of Arkansas held that a suit could be maintained against a doctor charged with malpractice within three years of the time when the wrongful act was discovered. In that case the alleged wrongful act or negligence had been committed in 1926, and suit was filed in 1933, and the cause of action was alleged to have been the leaving within the body of a quantity of gauze which seven years later produced soreness and pain, requiring a second operation. The syllabus to that case reads as follows: "Where a surgeon left a ball of gauze in the patient's abdominal cavity and failed to appraise her of that fact, his action constituted a fraudulent concealment and continuing negligence, which tolled the statute of limitations until he performed his duty of removing the gauze, or the patient learned or should have learned of its presence."

The statute of limitation within which time an action of malpractice may be brought was changed by Act 58 of 1945 from three years to two years.

Buy More

Liberty Bonds

THE ARKANSAS PHYSICIAN AND THE WORKMEN'S COMPENSATION ACT

Workmen's Compensation Commission
DAVE PEEL, Chairman, Little Rock

The Arkansas Workmen's Compensation Act, which became effective December 5, 1940, provides that every employment carried on in the State in which five or more employees are employed, with certain exceptions and exemptions, comes within the provisions of the law and provides that the Workmen's Compensation Commission have jurisdiction over all accidental injuries or deaths arising out of and in the course of the employment.

The jurisdiction of the Commission not only covers the claim of the injured workman, or his dependents, for compensation benefits but extends to the medical, surgical and hospital services rendered the injured employee and for funeral services in case of death.

It can be readily seen that practically all of the employments in the State come within the provisions of the law and protection is afforded the vast majority of the workers of the State in case of injury, or to their dependents in case of death. The Commission, therefore, is given jurisdiction over virtually all industrial injuries and deaths and over the relationship of patient and physician and all those who furnish any medical, surgical or hospital services to him.

Approximately one-third of the expenditures made under the Compensation Act go for medical, surgical, and hospital expenses.

It, therefore, behooves the Arkansas physician to familiarize himself with the provisions of this law with particular reference to the physician's rights and duties.

While the money recovery to an injured employee, or to his dependents in case of death, is limited to \$7,000, the amount that may be expended for medical, surgical or hospital expense is unlimited and in many instances has exceeded \$7,000.

The Arkansas Act is one of the few compensation acts that provide such liberal and unlimited medical benefits for accidental injury. Only in cases of silicosis and asbestosis is there any limitation on the medical benefits. In these two occupational diseases medical treatment cannot exceed 180 days.

Section 11 of the Act provides in cases of injury to a workman that the employer shall promptly provide such medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus as may be necessary during sixty days after the injury or for such time in excess thereof as in the judg-

ment of the Commission may be required. If the employer fails or neglects to provide the same within a reasonable time after knowledge of the injury, the Commission may direct that the injured employee, during the period of such neglect, or failure, do so at the expense of the employer; provided, however, that the injured employee, or another on his behalf, may obtain emergency treatment at the expense of the employer where such emergency treatment is not provided by the employer.

Whoever renders medical, surgical or other attendance or treatment, nurse, hospital service, medicine, crutches and apparatus, or emergency treatment, shall submit the reasonableness of the charges to the Commission for its approval and such charges shall be limited to such charges as prevail in the same community for similar treatment of like injured persons, and when so approved shall be enforceable by the Commission in the same manner as provided in the Act for the enforcement of compensation payments; provided, however, that the foregoing provisions, relating to approval and enforcement of such charges, shall not apply where a written contract exists between the employer or insurance carrier and the person who renders such medical, surgical or other attendance or treatment, nurse, or hospital service, or furnishes medicine, crutches or apparatus.

The Commission shall have authority to order a change of physicians at the expense of the employer, when, in its judgment, such change is desirable or necessary; provided, the employer shall not be liable to make any of the payments provided for in this Section, in case of contest of liability, where the Commission shall decide that the injury does not come within the terms of this Act.

Under the interpretation placed by the Commission on this section of the Act, the duty on the part of the employer to furnish medical attention to an injured employee carries with it the right to designate those who are to render such service. The right of the employer to designate those who are to render such service is based upon the theory that those who have the liability for compensation and medical services will be interested in placing the injured workman under competent care in order that the period of disability be as short as possible and the man returned to industry with the least possible degree of permanent disability.

Complaint is sometimes raised that the injured workman should have the right of choice of the persons who are to render medical service to him. Experience elsewhere has shown that this

is not desirable. Under our Act if the services designated by the employer are not competent, or if it is shown that the injured workman would make better progress in his recovery if placed under the care of others, the Commission will direct a change of physicians, or others who are rendering services to him for his disabilities.

Under this provision the interest of the injured workman is protected as he can petition the Commission for a change of physicians, or others rendering medical services, and upon a showing of justification for such change, it will be granted.

In some of the states this controversial matter is met by the employer having a panel of several physicians and hospitals and the injured workman has his choice of any physician, or hospital, listed upon the panel.

As the right to designate who shall render medical attention to an injured employee is reserved to the employer a physician should secure authorization from the employer before rendering medical services with the expectation of it being paid for by the employer. This does not apply to emergency treatment where such emergency treatment is not provided for by the employer. Obviously, where emergency treatment is not immediately available from the employer, authorization for emergency treatment does not have to be obtained.

In addition to medical, surgical and hospital services the Commission has held that the employer must furnish artificial members, arms, legs, hands, eyes, etc., and must furnish all necessary braces, built-up shoes, glasses, artificial teeth or the repair of natural teeth, etc., in an effort to rehabilitate the injured workman as far as possible.

The Act further provides where the employer denied liability for an injury, or for other reasons fails to provide medical attention, the injured workman, or someone on his behalf, may obtain medical treatment and upon a determination by the Commission that the employer was liable for the injury the expense of such treatment rendered shall be paid for by the employer.

The Act also provides that the reasonableness of all charges for medical services shall be submitted to the Commission. The Commission has had to pass upon such a question only in a few instances.

The Commission has never adopted a schedule of fees and charges covering medical treatment, preferring to leave such charges to the fairness and integrity of the profession. It is hoped that the necessity of such an action will never arise.

In this discussion we have referred to the duties, rights and liability of the employer. Ac-

tually in the care and treatment of injured employees those who render such care and treatment deal more often with the employer's insurance carrier.

Under the provisions of the Act the liability for compensation and medical care is primarily that of the employer. But he may insure his liability by securing workmen's compensation insurance through an approved insurance carrier, or by becoming a self-insurer by posting with the Commission security for his liability. The vast majority of employers secure insurance coverage and by their contract of insurance delegate to their insurance carrier the right to designate those who are to render medical services in cases of injury. For this reason it is the insurance carrier, rather than the employer, who deals with the physician, hospitals and others rendering medical services. However, it must be remembered that because the primary liability is the employer's, the primary right is also the employer's and where, in rare instances, there may arise a conflict between the employer and his insurance carrier over medical services the choice, or the direction, of the employer is paramount. Between the employer and the insurance carrier the terms of the policy of insurance shall govern, but between the employer, the injured workman and those who render medical services, the primary liability and responsibility is that of the employer, within the terms of the Act, and his is the last word in case of conflict with the insurance carrier. Happily but few such instances have arisen.

Many problems arise in this relationship of physician, patient, and the Commission, for the Commission is constantly a party to this relationship. There will be no attempt here to answer these problems generally but only a few will be touched upon.

During hospitalization should the injured workman have a private room? Should he have special nurses? Should he be referred by the attending physician to specialists for examination or treatment? Such questions are frequently asked.

The Commission has always held that such things are to be left to the sound discretion of the attending physician and in the absence of abuse of this discretion such things are reasonable medical services. Of course, when emergencies arise during the course of medical treatment that require operations, special nurses or other extraordinary expense, if the employer, or insurance carrier, is reasonably available and the time element permits, the physician should advise them of the necessity for such additional expense

and obtain authorization therefor. Such a course is always pursued by the conscientious, considerate physician and obviates misunderstandings. However, when the time element does not permit and the availability is not present, the attending physician is the judge of the necessity of such things and he should provide for the injured workmen the medical services that his condition requires.

We are frequently asked: "Is an injured workman required to submit to an operation in the course of his treatment for disability?"

He is not. It is solely a matter of choice with an injured workman as to whether he takes an operation, or not. His refusal to take an operation does not affect his rights to all treatment medical science can provide for him for his compensable disabilities. He should be fully advised as to the probable benefit of surgery, encouraged but not influenced to accept it, but cannot be required to submit to it. His refusal of an operation does not in any manner affect his rights to compensation or medical treatment.

Physicians often ask: "May I treat an injured workman for a condition, not the result of the injury, which is adding to or is prolonging his compensable disability?"

Yes, if a condition not the result of the injury, is delaying the recovery of the injured workman, or is increasing the extent of his disability. It is often found that syphilis, bad teeth or other infectious conditions are delaying recovery. These conditions must be cleared up, in many instances, before there can be a recovery from the compensable disability or the extent of permanent disability reduced to the minimum.

"Is the injured workman required to report for examination or treatment?"

Yes, upon direction of the Commission to do so he must report for examination or treatment. If he fails to obey the directions of the Commission, his rights to compensation and medical attention will be suspended during the period of his refusal.

Only the Commission can require this and only the Commission can suspend his compensation during his refusal as this is an administrative function. The employer, or insurance carrier, does not have this right. Where an injured workman fails, or refuses, to submit to the reasonable examinations or treatment this fact should be reported to the Commission with a request that he be directed to submit to examination or treatment.

Bills for treatment should be submitted directly to those from whom the physician received authority to treat the workman. Only in cases of

doubt as to whom they should be submitted should these bills be sent to the Commission. The Commission pays neither compensation or medical bills, this is paid by the insurance carrier or by the self-insured employer.

The Workmen's Compensation Act provides for compensation and medical benefits only for accidental injuries and certain recognized occupational diseases that arise out of and in the course of a workman's employment and does not cover injuries or diseases otherwise suffered.

Where a physician undertakes the treatment of an injured workman without authority from the employer or insurance carrier, or by direction of the Commission, he should carefully go into the history of the disability in order to ascertain whether he is dealing with a private patient or a workman with compensable disability. The mere fact that the injured man is someone's employee does not necessarily make the employer, or his insurance carrier, liable for the medical treatment.

"Are confidential communications received from the patient in the course of and pertaining to his treatment privileged?"

No, if the workman files a claim for compensation for the disabilities for which he was treated, the physician can be required to testify, when required by the commission, as to the treatment given and to communications received from the workman which were necessary for diagnosis or treatment, if such confidential communications are necessary for a proper disposition of the claim.

Even though the physician is employed by the employer or insurance carrier to treat the injured workman, he is looked upon as the physician of the injured man and is not required to divulge confidential communications unless such communications are necessary for a proper adjudication of the claim. The act of filing a claim for the disability for which treatment was received operates as a surrender of this privilege, to that extent.

"Am I required to answer a subpoena issued by the Commission?"

Yes, the Act authorizes the Commission to issue subpoenas and require their obedience and provides for contempt proceedings if not obeyed. Physicians are not exempt but must obey a subpoena upon payment of ordinary witness fees.

The Arkansas Act provides for the payment of compensation to an injured employee at a rate which cannot exceed \$20 a week, or be less than \$7 a week, for a period not to exceed 450 weeks or in an amount not to exceed \$7,000.

This, of course, is in addition to the medical benefits.

A workman totally and permanently disabled is entitled to draw compensation based on 65% of his average weekly wage, not to exceed \$20 a week or be less than \$7 a week, during the period of such total disability, but not to exceed 450 weeks or in an amount exceeding \$7,000. The loss of both hands, or both arms, or both legs, or both eyes, or of any two thereof, shall in the absence of conclusive proof to the contrary, constitute permanent total disability. In all other cases permanent total disability shall be determined in accordance with the facts.

In case of disability total in character but adjudged to be temporary, the workman is paid on the same basis, during the continuance of his disability for a period not to exceed 450 weeks or in an amount not to exceed \$7,000.

In case of disability partial in character but adjudged to be permanent, there is paid to the injured workman compensation based on 65% of his average weekly wages, not to exceed \$20 a week, or less than \$7 a week, for the healing period, which is defined to be that period of healing of the injury immediately following the accident, and 65% of his average weekly wages, beginning at the end of the healing period, in accordance with the following schedule:

- (1) Arm lost, 200 weeks' compensation.
- (2) Leg lost, 175 weeks' compensation.
- (3) Hand lost, 150 weeks' compensation.
- (4) Foot lost, 125 weeks' compensation.
- (5) Eye lost, 100 weeks' compensation.
- (6) Thumb lost, 60 weeks' compensation.
- (7) First finger lost, 35 weeks' compensation.
- (8) Great toe lost, 30 weeks' compensation.
- (9) Second finger lost, 30 weeks' compensation.
- (10) Third finger lost, 20 weeks' compensation.
- (11) Toe, other than great toe, lost, 10 weeks' compensation.
- (12) Fourth finger lost, 15 weeks' compensation.
- (13) Loss of hearing of one ear, 40 weeks' compensation.
- (14) Loss of hearing of both ears, 150 weeks' compensation.
- (15) Loss of one testicle, 50 weeks' compensation; loss of both testicles, 150 weeks' compensation.
- (16) Phalanges: Compensation for loss of more than one phalange of a digit shall be the same as for loss of the entire digit. Compensation for loss of the first phalange shall be one-half of the compensation for loss of the entire digit. (Note: The Commission holds that there

must be loss of the bone of a phalange to constitute loss of a phalange. Loss of the flesh of a phalange is compensated for on the basis of "loss of use of the phalange" at its proportionate value. The Commission, by rule, fixes the amputation of the bone of a phalange at or above the base of the nail at one-half the phalange or one-fourth of the digit. The amputation of the bone below the base of the nail and at or above the joint of the first phalange is held to be the loss of the whole phalange. Thus in cases of amputation of the bone of the first phalange we have only two estimates of loss, one-half the phalange or all of the phalange. The Commission also holds where the amputation by injury involves the loss of any of the bone of the second phalange that this constitutes the loss "of more than the one phalange of a digit" and constitutes the loss of the finger. In injuries resulting in the loss of all the first phalange the Commission does permit the surgeon to round off the knobs of the second joint and smooth off the articulating surfaces in order to get a smooth, comfortable pad without considering this a loss of bone of the second phalange and requiring the payment of compensation for the entire finger. If, however, the surgeon drops back in the second joint for this purpose and removes an excessive amount of bone, thus materially shortening the stump, this is said to constitute the loss of the entire finger).

(17) Amputated arm or leg: Compensation for an arm or leg, if amputated at or above the elbow or the knee, shall be the same as for a loss of the arm or leg; but if amputated between the elbow and wrist, or between the knee and ankle, shall be the same as for the loss of the hand or the foot.

(18) Per centum of Vision: Compensation for the irrecoverable loss of 80 per centum or more of the vision of an eye shall be the same as for the loss of the eye.

(19) Two or more digits: Compensation for loss of two or more digits, or one or more phalanges of two or more digits, of a hand or foot, may be proportioned to the loss or loss of use of the hand or the foot occasioned thereby, but shall not exceed the compensation for the loss of a hand or foot. (Note: In such a case the workman is entitled to have his disability apportioned to the hand or foot if such an apportionment afforded him a greater extent of disability than does the loss or loss of use of the individual phalanges or digits. He cannot be paid for a lesser degree of disability than the worth of the individual phalanges or digits disabled).

(20) Total loss of use: Compensation for

permanent total loss of use of a member shall be the same as for loss of the member.

(21) Partial loss or partial loss of use: Compensation for permanent partial loss or loss of use of a member shall be for the proportionate loss or loss of use of the member.

(22) Disfigurement: The Commission shall award proper and equitable compensation for serious and permanent facial or head disfigurement, but not exceeding the sum of \$2,000: provided, however, that in making such an award the Commission shall consider only the effect such disfigurement shall have on the future earning capacity of the injured employee in similar employment; and provided further, that no such award shall be entered until 12 months after the injury.

(23) Other cases: In all other cases of permanent partial disability there shall be paid to the injured employee 65% of the difference between his average weekly wages and his wage earning capacity thereafter in the same employment or otherwise, payable during the continuance of such partial disability in no case exceeding a longer period than 450 weeks or in an amount exceeding \$7,000. (Note: It is in this sub-section that back and head injuries and all injuries to the body as a whole fall, such injuries to the body as a whole not having a specific schedule value as does a member).

Hernia: In all cases of hernia the injured employee is entitled to an operation and medical benefits not to exceed \$250 and to compensation not to exceed 26 weeks.

If he elects not to take an operation he is entitled to a truss and compensation not to exceed 13 weeks.

Death benefits: In case of death from a compensable injury the dependents are entitled to compensation in an amount not less than \$7 or more than \$20 a week, for a period not to exceed 450 weeks, or in an amount not to exceed \$7,000.

Death benefits are in addition to the compensation that the injured workman might have drawn from the time of his injury to death. In every case of compensable death the employer, or insurance carrier, is liable for reasonable funeral expenses not to exceed \$250.

Where a burial policy is held by the deceased, or by someone for his benefit, and is used in the burial of the deceased, the Commission has always directed that reimbursement out of the \$250 maximum burial benefit be first made, to the value of the burial policy, to the person entitled thereto and the amount remaining of the

\$250, after such deduction, be paid to the person furnishing the burial service.

Occupational Diseases: Arkansas is one of the few States providing workmen's compensation for occupational diseases.

There are 15 recognized occupational diseases compensated for under the Act. The Commission is empowered to add to this list from time to time upon proper hearing and inquiry into the matter.

Compensation for occupational diseases is the same as for accidental injuries except in the cases of silicosis and asbestosis. As to these two occupational diseases liability for compensation was limited to \$500 for disability and death as of the effective date of the Act, December 4, 1940, to increase at the rate of \$50 each month thereafter until a limit of \$7,000 for disability and death is reached. In December, 1946, the liability for total disability and death from silicosis or asbestosis will be limited to \$4,600.

In hearings upon controverted claims for compensation for occupational diseases where any medical question is in conflict, the Commission is empowered to appoint a Medical Board consisting of three members to pass upon whether or not the claimant has an occupational disease. In the absence of fraud or of a showing that the findings of the Medical Board are manifestly erroneous or unreasonable, or due to inadvertence or mistake of fact or law, such findings are binding and cannot be set aside by the Commission and the Commission's findings must conform to the findings of the Medical Board.

It is not contemplated by the Act that this Medical Board be a permanent board but shall consist of physicians specializing in the disease under consideration by the Commission and shall be appointed for that specific hearing and that hearing only. Thus the Medical Board will vary from time to time, depending upon the particular claim under consideration.

Members of the Medical Board are paid their necessary expenses and \$15 a day while actually serving at a hearing on the occupational disease claim before the Commission. It can be classed public service instead of employment.

In connection with the relationship existing between the patient, the physician and the Commission the physician has certain duties to the Commission.

The Act requires the employer, or his insurance carrier, within 14 days after knowledge of an injury, to begin the payment of compensation to the injured workman or controvert liability therefor, giving his reasons for denying liability. Obviously, the employer, or his insurance carrier,

often is at loss to know whether the workman has sustained a compensable injury, or the extent thereof, until he receives the physician's first report. If this report is delayed in reaching the employer, or insurance carrier, and the compensation, if due, is not started within 14 days, the employer, or insurance carrier, is subject to a penalty for this failure.

The injured workman, often helpless and in need, is deprived of his compensation which is intended for his support and that of his family. The employer, or his insurance carrier, is delayed in carrying out their obligation to the injured man. The Commission is likewise delayed in performing their functions under the Act. Promptness in reporting their examinations and treatment by the physician cannot be overemphasized. It is vital in the prompt and efficient administration of the Act.

Where the physician's report is delayed it is often necessary for the injured man to be examined by another physician, thus causing additional expense that would not have been necessary if the original examiner's report had been promptly and timely filed. When such situations do occur there is a likelihood the employer, or insurance carrier, will complain of the charges made by the original examiner when his report is filed, upon the ground that the delayed report was valueless and that they had been put to additional expense by reason of the delay.

All such occurrences cause misunderstandings and, in some instances, hard feelings and cause the Commission to pass upon the matter, an unpleasant duty, always. Fortunately most physicians are prompt in sending in their reports and the injured workmen are paid their compensation when due.

The physician's report should contain enough of a statement of the history of the injury as to disclose that the physician was aware of the nature of the injury. It should contain a statement of his findings of disability, if any, relating to the alleged injury and the extent of the disability as accurately as can be determined at the time of the examination.

In addition to the relation of the disability to the accident and the extent of the disability, the report should contain an estimate of the duration of the disability, the probability of any permanent disability, whether or not the injured man was able to do light work, what treatment was given, if X-rays were made and if specialized treatment is needed. The report should be as full and as definite as possible.

The physician should refrain from advising the

Commission what kind of an award should be made to the injured workman. This is the province and the duty of the Commission and is arrived at from all the facts, medical and otherwise.

In the six years of the operation of the Act the Commission has received splendid co-operation from the overworked medical profession, as a whole, and we fully appreciate their efforts to advise the Commission fairly and impartially as to their examinations and treatment of injured workmen. They have thus aided us in the administration of the Act, and whatever success it has had in its operation is partly due to the medical profession of Arkansas. The Commission is ready and eager to assist the physician in any way that it can in the solution of the problems that arise in their relationship.

HOSPITALIZATION OF INDIGENTS; STATE BOARD OF WELFARE PROVISIONS FOR

Act No. 115, 1937 (H. B. 381), provides definitely for hospitalization of indigents, including charges that may be made by hospitals, and the length of time that patients may receive such care, the duration of hospitalization being limited to 21 days, except where that would prove insufficient, in which case application may be made to the Commission of Public Welfare for authority to continue such hospitalization, but in no event shall the charge exceed \$50 as hospitalization for any one person. In cases of emergency, such application for extension may be made to the county director.

The State Department of Public Welfare, under the provisions of Act 149 of 1943, is given the additional right to determine the eligibility of applicants for hospital benefits under a previous act giving such rights to indigents in unusual cases where family income seems totally inadequate to meet family expenses. Such treatment is limited to an applicant for a period of not exceeding 20 days in a participating hospital selected by the patient or physician. Hospital fees were increased by virtue of this act from a maximum of \$2.50 to \$3 per day.

Act 278 of the Acts of 1945 amended such payments to rates of a minimum of \$3 to a maximum of \$5 per day.

Act 158 of 1943 provides that patients certified by the State Tuberculosis Sanatorium to local physicians may receive pneumothorax treatments at home when the County Judge certifies them to be unable to pay for the same. However, fees allowed are not to exceed \$3 per treatment.

STATE BOARD OF HEALTH, SERVICES, LAWS, AND RULINGS*

Act No. 96, 1913 Legislature created the State Board of Health to be composed of seven members, all physicians, one from each congressional district. This Act states that " * * * the State Board of Health shall have general supervision and control of all matters pertaining to the health of the citizens of this State * * * and conferred on the State Board of Health * * * the power to make all necessary and reasonable rules and regulations for the protection of the public health * * *."

The Executive Secretary of the State Board of Health is the State Health Officer. The present State Board of Health is composed of the following members:

E. D. McKnight, M. D., Brinkley, President.

M. E. McCaskill, M. D., Little Rock.

Thos. Wilson, M. D., Wynne.

J. G. Gladden, M. D., Harrison.

W. G. Hodges, M. D., Malvern.

A. S. Buchanan, M. D., Prescott.

C. A. Archer, Sr., M. D., DeQueen.

T. T. Ross, M. D., Executive Secretary and State Health Officer.

Local Health Departments

At the present time there are in the State eight single county health departments, one full-time city health department and 17 district health departments composed of from two to five counties, with a total of 57 counties included in the 17 districts. Also 10 counties are organized for nursing service only. A full-time medical officer is in charge of public health activities in each single county health department and in each district and in the one city health department. A sanitary officer is also assigned on the same basis as the medical officer. Public health nurses and clerical workers are assigned on an individual county basis.

The personnel of these offices is available upon request of the private physician for consultation pertaining to public health, control of communicable disease, public health nursing or sanitation. Due to shortage of qualified public health personnel there are a number of vacancies.

The following is a list of the single county health departments and the medical directors:

Crittenden County—Court House, Marion

Health Officer: (Vacancy).

Garland County—City Hall, Hot Springs

Health Officer: (Vacancy).

Jefferson County—County Health Building, Pine Bluff

Health Officer: Walter H. Bruce, M. D.

*Prepared by the staff, Arkansas State Board of Health.

Miller County—Court House, Texarkana

Health Officer: (Vacancy).

Mississippi County—County Health Building, Blytheville

Health Officer: (Vacancy).

St. Francis County—Court House, Forrest City

Health Officer: (Vacancy).

Pulaski County—Court House, Little Rock

Health Officer: J. A. Summers, M. D.

Sebastian County—County Health Building, Fort Smith

Health Officer: J. E. Johnson, M. D.

A list of the district health departments, medical directors and the counties included in each district follows:

District Health Department No. 1—Court House, Monticello

Health Officer: (Vacancy).

Counties included: Drew, Bradley, Cleveland, and Lincoln.

District Health Department No. 2—Court House, Hamburg

Health Officer: (Vacancy).

Counties included: Ashley, Chicot, and Desha.

District Health Department No. 3—County Health Building, Arkadelphia

Health Officer: R. E. Smallwood, M. D.

Counties included: Clark, Hempstead, and Nevada.

District Health Department No. 4—Court House, Conway

Health Officer: (Vacancy).

Counties included: Faulkner, Cleburne, and Van Buren.

District Health Department No. 5—Court House, Ashdown

Health Officer: (Vacancy).

Counties included: Little River, Howard, and Sevier.

District Health Department No. 6—Court House, Fayetteville

Health Officer: (Vacancy).

Counties included: Washington, Benton, and Madison.

District Health Department No. 7—Old N.Y.A. Building, Camden

Health Officer: R. C. Kennerly, M. D.

Counties included: Ouachita, Calhoun, and Dallas.

District Health Department No. 8—Court House, Helena

Health Officer: L. B. Jones, M. D.

Counties included: Phillips, Lee, and Monroe.

District Health Department No. 9—Court House, Russellville

Health Officer: A. B. Tate, M. D.

Counties included: Pope, Johnson, Yell, and Conway.

District Health Department No. 10—Court House, Malvern

Health Officer: (Vacancy).

Counties included: Hot Spring, Saline, and Grant.

District Health Department No. 11—Court House, Augusta

Health Officer: (Vacancy).

Counties included: Woodruff, Cross, Prairie, and Arkansas.

District Health Department No. 12—Court House, Walnut Ridge

Health Officer: (Vacancy).

Counties included: Lawrence, Greene, Clay, and Randolph.

District Health Department No. 13—Court House, Van Buren

Health Officer: (Vacancy).

Counties included: Crawford, Franklin, and Logan.

District Health Department No. 14—Court House, Newport

Health Officer: (Vacancy).

Counties included: Jackson, Independence, and White.

District Health Department No. 15—Court House, Harrison

Health Officer: Abram F. Stanley, M. D.

Counties included: Boone, Carroll, Marion, Newton, and Baxter.

District Health Department No. 16—Court House, Mt. Ida

Health Officer: (Vacancy).

Counties included: Montgomery, Pike, Scott, and Polk.

District Health Department No. 17—Court House, Jonesboro

Health Officer: (Vacancy).

Counties included: Craighead and Poinsett.

The one fulltime city health department is that of the City of Little Rock with headquarters in the City Health Building at Markham and Gaines Streets. Dr. W. P. Scarlett is the Medical Director.

Chapter II

Reporting of Notifiable Diseases

Section 1. Immediate Notification of Certain Diseases Required. The following named diseases are declared dangerous to the public health and are required to be reported to the health authority in whose jurisdiction the case occurs as soon as the disease is suspected. These diseases shall be reported again on weekly written report cards furnished by the State Board of Health:

Anthrax (in man)	Meningococcic meningitis
Chicken pox	Ophthalmia neonatorum
Cholera	Paratyphoid fever
Diphtheria	Plague (Bubonic, Pneumonic)
Dog bite	Poliomyelitis
Dysentery (Bacillary)	Psittacosis
Epidemic Encephalitis (Lethargic)	Rabies (in man)
German measles	Rocky Mountain Spotted fever
Septic Sore Throat (Epidemic)	Scarlet fever
Typhus	Smallpox
Yellow fever	Typhoid fever

Section 2. Weekly Notification of Certain Diseases Required. The following diseases shall be reported in writing on weekly report cards to the health authority in whose jurisdiction the case occurs. (Immediate notification unnecessary):

Dengue	Tetanus
Dysentery (Amoebic)	Trachoma
Erysipelas	Trichinosis
Hookworm disease	Tuberculosis of the lungs
Influenza	Tuberculosis not of the lungs
Leprosy	Tularemia
Malaria	Undulant fever
Mumps	Whooping cough
Pellagra	Cancer
Pneumonia (all forms)	Puerperal Septicemia

Section 3. All venereal diseases including

syphilis, gonorrhea, and chancroid shall be reported on weekly report cards to the health authority in whose jurisdiction the case occurs. The name and address of the patient shall be excluded from the report. These cases shall be reported by number or initial provided that when any person suffering from chancroid, gonorrhea, or syphilis shall discontinue treatment while in the judgment of the attending physician he is capable of transmitting the disease to others, such physicians shall report immediately such facts together with the full name and address of the patient to the local health authority in a sealed envelope.

Section 4. Reporting of Food Poisoning. Every physician, visiting nurse, public health nurse, and every superintendent or other person in charge of any school, hospital, institution, dispensary, laboratory, labor camps or other camps, who shall have knowledge of the occurrence of a number or group of cases of illness believed to have been due to the consumption of spoiled or poisonous food, shall report the same immediately to the local health authority.

Section 5. Other Diseases. Other diseases not named in this list may at any time be declared notifiable as the necessity and public health demand, and regulations for their control shall apply when so ordered by the State Board of Health.

Chapter III Responsibility for Reporting

Section 1. Physicians. It shall be the duty of every physician in the State of Arkansas to report according to Chapter II, every case of communicable disease in his practice or which he may be called upon to attend.

Section 2. Cases Without Medical Attendance. When there is no physician in attendance upon any case of communicable disease mentioned, it shall be the duty of any person having knowledge of the same, by reason of attendance, or upon whose premises a case of such disease is suspected to exist, to make a report as specified.

Section 3. Immediate Reporting to State Health Officer. Each local health authority shall report the following diseases to the State Health Officer by telephone or telegraph as soon as possible after personal investigation:

Cholera	Plague (Bubonic and Pneumonic)
Psittacosis	Rocky Mountain Spotted fever
Typhus	Yellow fever

Section 4. Immediate Reporting to State Health Officer When Occurring in Epidemic Form. Each local health authority shall report

the following diseases, when occurring in epidemic form, to the State Health Officer by telephone or telegraph as soon as possible after investigation:

Diphtheria	Smallpox
Epidemic encephalitis	Typhoid fever
Epidemic poliomyelitis	Paratyphoid fever
Meningococcus Meningitis	Scarlet fever
Septic sore throat	

Section 5. Notification of Outbreak in Municipalities of Food Poisoning, Diarrhea, Jaundice, Epidemic Influenza, Glandular Fever, Sore Throat and Undiagnosed Febrile Disease:

Whenever there shall occur in any municipality an outbreak of suspected food poisoning or an unusual prevalence of diarrhea, gastroenteritis, enteritis, colitis, enterocolitis, cholera nostras, cholera infantum or other disease in which diarrhea is a prominent symptom or whenever jaundice, epidemic influenza, glandular fever, sore throat or any undiagnosed febrile disease is unusually prevalent, it shall be the duty of the local health authority to report immediately the existence of such an outbreak to the State Health Officer.

Section 6. Weekly Report Required. A weekly report of communicable diseases, giving number of cases, with such other information as may be required, for the period ending Friday of each week, shall be made by each local health authority to the State Health Officer and where no such diseases have been reported, the report shall so state. All reports are to reach the State Health Officer by Monday of the following week.

Section 7. Duties of Registrars and Local Health Authorities When Deaths From Communicable Diseases Are Reported:

A. It shall be the duty of the local Registrar of Vital Statistics whenever a certificate of death from a communicable disease has been filed with him to report immediately to the local health authority the name, age, and address of the deceased, the disease, and the name of the physician who signed such certificate.

B. It shall be the duty of the health authority upon receiving such a report to ascertain immediately whether such person has been reported as suffering during life with such communicable disease. If the health authority ascertains that a physician has failed to report a case of communicable disease, he shall inform the physician of his failure to conform with this regulation and shall report this information including the name and address of such physician to the State Health Officer.

Chapter IV Responsibility for Investigation and Procedure To Be Taken

Section 1. Local Health Authority. Whenever a local health authority shall know or suspect or be informed of the existence of any communicable disease declared notifiable, and where no licensed physician is in attendance; or should a physician in attendance fail or refuse to report such case to the local health authority, it shall be the duty of said local health authority to investigate such case or cases of alleged communicable disease and act as required, even when doubt exists, under the rules governing such cases of communicable disease.

Section 2. Procedure Taken When Doubt Exists As to the Diagnosis. Where doubt exists as to the diagnosis, the local health authority shall enforce quarantine measures for the suspected disease as if it were a communicable disease, and refer the matter to the State Health Officer who will have an investigation made for final decision.

Section 3. Steps to Be Taken in Case of Obscure Illness. Whenever a case of obscure illness shall be reported to the local health authority, which upon investigation, presents symptoms of a disease subject to quarantine or isolation, but in which, in the judgment of the local health authority, sufficient time has not elapsed to render a positive diagnosis of the disease possible, a temporary quarantine or isolation shall be imposed, which quarantine or isolation shall be in all respects governed by the same rules and regulations as a permanent quarantine or isolation. If the disease proves not to be one of contagious or infective nature, the local health authority shall then declare the temporary quarantine or isolation terminated.

Section 4. Isolation. It shall be the duty of the attending physician immediately upon discovering a case of communicable disease to cause the patient to be isolated, pending official action by the local health authority. Such physician shall also advise other members of the household regarding precautions to be taken to prevent further spread of the disease, and shall inform them as to appropriate specific preventive measures. He shall, in addition, furnish the patient's attendant with such detailed instructions regarding the disinfection and disposal of infective secretions and excretions as may be prescribed by the State Health Officer.

Section 5. Local Quarantine:

A. The responsibility for placing quarantine rests solely with the Medical Director or where

there is no Medical Director with the Health Officer.

B. Interference with placards prohibited.

(1) No person shall interfere with or obstruct any health authority in the posting of any placard stating the existence of a case of communicable disease, in or on any place or premises, nor shall any person conceal, mutilate, or remove any such placard except by permission of the health authority.

(2) In the event of any such placard being concealed, mutilated, or torn down it shall be the duty of the occupant of the premises whereon such placard was posted immediately to notify the health authority of such fact.

Section 6. State Quarantine:

A. The State Health Officer shall impose such quarantine restrictions and regulations upon commerce and travel by railway, common carriers, or any other means and upon all individuals as in his judgment may be necessary to prevent the introduction of communicable diseases into the state or from one place to another within the state.

B. No quarantine regulations of commerce or travel shall be instituted or operated by any place, city, town or county against another place or county in this or in any other state except by authority of the State Health Officer.

C. No person shall interfere with any health authority having jurisdiction, or carry or remove from one building to another, or from one locality to another, within or without the state, any patient affected with a communicable disease dangerous to the public health, except as provided under the rules governing the transportation of same.

Chapter VI Communicable Disease Control In Schools

Section 1. Health of Teacher, Pupils and Employees:

a. Hereafter all school teachers within this State shall present a certificate of health from a regularly licensed physician or regularly constituted health authority, stating that said teacher is free from tuberculosis, which certificate of health shall be presented to the Secretary of the School Board before a contract shall be entered into between the School Board and the teacher making application, and said certificate of health shall bear date not longer than 12 months prior to application. Act April, 1919, p. 441, 1.

b. Teachers, pupils and employees infected with any communicable disease made notifiable, or any of the following named diseases, shall be excluded from school and remain in isolation during the existence of the disease, and shall

be readmitted only upon compliance with Section 3, Chapter VI of these regulations: Tonsilitis; trachoma (or sore eyes of any kind), scabies (itch), pediculosis capitis (head lice), pediculosis corporis (body lice), tinea circinata (ringworm), impetigo contagiosa, favus.

c. No person suffering from any communicable disease shall be employed as teacher or janitor or in any capacity which brings them in contact with children in any public school in this state.

Section 2. Responsibility for Exclusion from School:

a. The teacher or principal shall exclude from school any child suspected to be suffering from any communicable disease, pending examination and report from the school physician, or where no school physician is provided for, from any licensed physician.

b. During an epidemic the school physician and/or school nurse if such are available shall provide for medical and/or nursing inspections as often as is necessary to locate unrecognized cases and exclude them from school. In the absence of a school physician or nurse such duties shall be performed by the local health authority and/or county health nurse.

Section 3. Admission or readmission of Persons Having Had a Communicable Disease:

a. No pupil, teacher or employee who has suffered and recovered from a communicable disease while attending school, or who has recently suffered from a communicable disease, shall be permitted to reenter, or enter, as the case may be, any school except upon certificate of the school physician, setting forth that all rules and regulations have been complied with, and that the pupil presents no evidence of the disease and is not capable of conveying the infection. Where no school physician is provided for, the certificate of any licensed and competent physician shall be accepted.

Section 4. Smallpox Vaccination:

a. No person shall be entered as a teacher, employee or pupil in a public or private school in this state without having first presented to the principal in charge or the proper authorities, a certificate from a licensed and competent physician of this State certifying that the said teacher, employee, or pupil has been successfully vaccinated; or in lieu of a certificate of successful vaccination, a certificate certifying a recent vaccination done in a proper manner by a competent physician; or a certificate showing immunity from having had smallpox.

b. The responsibility for the enforcement of this regulation rests equally on each and every

member of the School Board, the Superintendent, Principal, or Teacher in charge, and the Parent or Guardian of the pupil, and each of them shall be separately and individually liable for permitting any violation of this regulation. If, in the discretion of the health authority having jurisdiction, any person to whom this regulation applies shall have physical disability which may contraindicate vaccination, a certificate to that effect, issued by the said health officer, stating the contraindication, may be accepted in lieu of a certificate of vaccination, provided that the exemption shall not apply when such disability shall have been removed.

c. The school boards, school superintendents, school teachers, parents and guardians shall be equally responsible for the enforcement of the compulsory vaccination law. They shall furnish such information to the health authorities from time to time as may be required.

Section 5. Closure of Schools:

a. The State Board of Health recommends that schools be kept open in the presence of outbreaks of communicable disease except in the case of certain distinctly rural communities where the only common meeting ground of the children is in the school house. While recognizing that the pressure of public fear in the presence of an outbreak of disease may be sufficient to force the school and health authorities to close the schools, the State Board of Health takes this stand because there is no evidence, except in rural communities above mentioned that school closure has "stamped-out" or "controlled" an outbreak.

Chapter VII

Transportation of Persons Suffering From Or Bodies Dead From Communicable Diseases

Section 1. Transportation, Removal, or Conveyance of Cases of Communicable Diseases. No person affected with or suspected of being affected with a disease mentioned in Part I, Chapter II, Section 1 diseases requiring immediate reporting) or with whooping cough or mumps shall be transported, removed or conveyed except with the permission of the local health authority, and such removal shall be by means of a private conveyance, in charge of a responsible person and conducted in such a manner as to prevent en route the exposure of other persons to the patient. Where the case is to be transported into the jurisdiction of another health authority, the local health authority from whose jurisdiction such person is removed shall obtain permission of the health authority into whose jurisdiction such person is to be removed.

Section 2. Transportation, Removal, or Con-

veyance of Bodies Dead of Communicable Disease:

a. The following terms hereinafter used are defined as follows:

(1) "To transport" shall mean to convey or remove a dead human body from the place of death.

(2) "To ship" shall mean to convey a dead human body by train, boat, or airplane.

b. No bodies dead of any disease dangerous to the public health may be transported or shipped, except as provided by "d" and "e" without having been prepared for burial by thorough embalming and disinfecting.

c. Bodies of anthrax, glanders, leprosy, plague, smallpox or tularemia, which may produce dangerous surface lesions, and if such lesions occur on such bodies, may not be transported unless further prepared by being enveloped in a sheet saturated with bichloride of mercury, 1:500, and securely pinned; provided that if such lesions do not occur on head, neck or hands, such parts may not necessarily be enveloped. When in doubt as to preparation of such bodies for transportation, consult with the local health authority.

d. Bodies dead of diseases dangerous to the public health, but without dangerous lesions, may be transported to the morgue of a funeral director without arterial and cavity embalming provided that such bodies have been prepared before transportation by thorough surface washing and disinfecting and by stopping and disinfecting of orifices and by enveloping in a sheet saturated with 1:500 bichloride of mercury and securely pinning the same. Before removal from such morgue the body must be thoroughly embalmed and disinfected.

e. Bodies dead of any disease dangerous to the public health may be transported directly to the place of burial within 24 hours of death without arterial and cavity embalming, provided such bodies are prepared before transportation by thorough surface washing and disinfecting and by the stopping of and disinfecting of arifices and by enveloping in a sheet saturated with 1:500 bichloride of mercury and securely pinning the same. Such unembalmed bodies are to be placed in sealed caskets or cases not to be reopened, and may be shown only under sealed glass panels. If such unembalmed bodies are to be shipped, they must be placed in hermetically sealed cases.

f. Bodies dead of any disease dangerous to the public health shall not be accompanied by articles which have been exposed to the infection of the disease, unless such articles have been properly disinfected.

g. No disinterment of the bodies of any persons who have died of any disease dangerous to the public health shall be allowed within six months from date of death except by special permission of the State Health Officer.

Chapter VIII

Funerals of Those Dead of Communicable Diseases

Section 1. Funerals of those dead of anterior poliomyelitis, Asiatic cholera, diphtheria, encephalitis lethargica, leprosy, meningococcus meningitis, plague, psittacosis, scarlet fever, smallpox, streptococcus sore throat, or typhus fever, when conducted on the premises where such deceased persons died, shall be attended only by members of the immediate household, clergyman, undertaker and undertaker's assistants; when held from a place other than where such persons died, the local health authority may permit a public funeral if the bodies, in his opinion, have been prepared or enclosed according to the regulations of the State Board of Health and provided such persons as are probable carriers of the infection, by reason of contact, shall be forbidden to attend such funeral.

Section 2. Bodies dead of anthrax, glanders, leprosy, plague, smallpox or tularemia, which may produce dangerous surface lesions, and if such lesions occur on such bodies, after preparation for transportation as regulated by the State Board of Health, must be placed before the funeral in a sealed casket, not to be reopened, and the funeral may be either public or private. Such bodies may be shown only under a sealed glass-paneled burial case.

VENEREAL DISEASE LAWS AND REGULATIONS

Relation to Public Health

Gonorrhea, syphilis, and chancroid are declared dangerous to the public health and are required to be reported to the health authority in whose jurisdiction the case occurs as soon as the disease is suspected. Sec. 1, Chap. II of Part I: Pages 7-8.

Reportable

All venereal diseases including syphilis, gonorrhea, and chancroid shall be reported on weekly report cards to the health authority in whose jurisdiction the case occurs. The name and address of the patient shall be excluded from the report. These cases shall be reported by number or initial provided that when any person suffering from chancroid, gonorrhea, or syphilis shall discontinue treatment while in the judgment of the attending physician he is capable of transmitting the disease to others, such physicians

shall report immediately such facts together with the full name and address of the patient to the local health authority in a sealed envelope. Reg. Sec. 3, Chap. II of Part I: Page 8.

It shall be the duty of every physician or superintendent of a hospital and/or dispensary to report as soon as the case is diagnosed, on the weekly report card to the local health authority, every case of syphilis, gonorrhea, and chancroid, by number, stating the age, race, sex, marital condition and occupation of the patient and the type and stage of disease. This report shall not contain the name nor exact address of the patient; however, the locality in which the patient resides should be stated. Reg. Chap. V of Part I: Page 16.

It shall be the duty of every physician in the State of Arkansas to report every case of communicable disease in his practice or which he may be called upon to attend. When there is no physician in attendance upon any case of communicable disease mentioned, it shall be the duty of any person having knowledge of the same, by reason of attendance, or upon whose premises a case of such disease is suspected to exist, to make a report as specified. Regs. Secs. 1 and 2, Chap. III of Part I: Page 9.

Examination

Whenever any health authority has reasonable grounds to believe that any person is suffering from syphilis, gonorrhea, or chancroid in a communicable stage, he is authorized to cause such person to be apprehended and detained for the necessary tests and examination, including Wassermann blood test, to ascertain the existence of said diseases or either of them, provided that any evidence so acquired shall not be used against such person in any criminal prosecution. Reg. Chap. V of Part I: Page 17.

Treatment

It shall be the duty of every physician consulted by a patient with one of these diseases to ascertain from the patient the name and address of any physician previously consulted for this condition and to determine from this previously consulted physician whether the case has been reported, and to inform him that the patient has changed medical advisors; otherwise the previously consulted physician will be expected to report the patient to the local health authority as a delinquent in treatment. Patients who discontinue treatment prematurely and who are not known to be under treatment elsewhere, shall be reported by name and address to the local health authority within a week of the missed appointment in case of primary or secondary syphilis, congenital syphilis with active lesions,

syphilis in pregnant women, and acute gonorrhea; and within two weeks of the missed appointment in all other cases. Patients with lesions of primary or secondary syphilis on exposed parts of the body or in the mouth, who are employed in any occupation requiring direct contact with any other persons (barber, hairdresser, manicurist, waiter, waitress, nursemaid, domestic, bath attendant, masseur) shall be reported by name, address and occupation to the local health authority, unless the attending physician will assume the responsibility for seeing that the patient discontinues such occupation until the lesions are healed. The attending physician shall attempt to identify the source of the patient's infection and shall report the name and address of the source of infection to the local health authority, within two weeks of identification unless, in the meantime, the said source is known to be under medical care. Reg. Chap. V of Part I: Page 16.

Quarantine

It shall be the duty of the attending physician immediately upon discovering a case of communicable disease to cause the patient to be isolated, pending official action by the local health authority. Such physician shall also advise other members of the household regarding precautions to be taken to prevent further spread of the disease, and shall inform them as to appropriate specific preventive measures. He shall, in addition, furnish the patient's attendant with such detailed instructions regarding the disinfection and disposal of infective secretions and excretions as may be prescribed by the State Health Officer. Reg. Sec. 4, Chap. IV of Part I: Page 11.

Any health authority may, when in the exercise of his discretion he believes that the public health requires it, commit any commercial prostitute or other person apprehended and examined and found afflicted with said diseases, or either of them who refuses or fails to take treatment adequate for the protection of the public health, to a hospital or other place in the State of Arkansas for such treatment even over the objection of the person so diseased and treated, provided the commitment can be done without endangering the life of the patient. Reg. Chap. V of Part I: Page 17.

Infecting or Exposing Another to Infection

It shall be the duty of a physician on the occasion of the first visit to or by a person suffering from chancroid, gonorrhea or syphilis to instruct said person in the precautions to be taken to prevent communication of the disease to others, and to inform him of the necessity of continued treatment until cured, and further to

give him a circular of information and advice approved by the State Health Officer. Reg. Chap. V of Part I: Sec. 4, Page 17.

Ophthalmia Neonatorum

It shall be the duty of every physician or midwife to instill one or two drops of a 2 per cent solution of silver nitrate into each eye of every infant immediately after birth.

Ophthalmia neonatorum is to be reported to the local health authority in whose jurisdiction the case occurs as soon as the disease is suspected and the case shall also be included on the weekly report card.

It shall be the duty of such local health authority to investigate the case to confirm the diagnosis by bacteriological examination and to determine if the attendant at delivery used silver nitrate in the eyes of the infant. Reg. Chap. V of Part I: Pages 13-14.

The Arkansas State Board of Health Regulations as stated above regarding examination and quarantine have been upheld by the Supreme Court of the State of Arkansas in the case of City of Little Rock v. Smith, 204 Ark. 692, S. W. 2d 705.

On February 5, 1946, the Attorney General ruled that:

"The health authority has the legal authority to order apprehended, detained and examined, any individual who it has reason to believe is suffering from a venereal disease in a communicable stage and who is not receiving or has not received standard recognized treatment for said disease adequate for the protection of the public health even though said patient is under the medical care of a licensed physician."

Drugs

Drugs commonly used for the treatment of syphilis, with exception to penicillin, are furnished by the Arkansas State Board of Health through local health departments on cases to physicians submitting morbidity reports on venereal disease as requested by the U. S. Public Health Service. Physicians having patients unable to pay for the treatment of venereal disease may refer such individuals to local state affiliated diagnostic and treatment clinics, or refer them by letter to the U. S. Public Health Service Medical Center located in Hot Springs, Arkansas. The Medical Center is operated by the U. S. Public Health Service in cooperation with the Arkansas State Board of Health.

Through the local health department the Arkansas State Board of Health furnishes, free of charge and upon the request of the private physician or midwife, a 20 per cent solution of

silver nitrate for the prevention of ophthalmia neonatorum.

Laboratory Examinations for Venereal Disease

The State Hygienic Laboratory will make microscopic examination for the diagnosis of gonorrhea, and the necessary examinations of blood specimens or secretions for the diagnosis of syphilis, without charge, to any physician in the state who submits such specimens for examination.

Assistance to Physicians in Case Holding

The services of trained public health nurses and health officers are available to physicians of the state in those localities wherein a local health department is in operation under the supervision of the Arkansas State Board of Health for the finding and holding of cases of venereal disease under the care of private practicing physicians. This service is available upon request of the physician.

SERVICES FOR MATERNAL AND CHILD HEALTH

The Maternal and Child Health Division plans and supervises the activities of state and local health department staff for the promotion of health and prevention of deaths among infants and children and women experiencing maternity. The program is chiefly educational, furnishing information for physicians, nurses, teachers, hospital administrators, parents, widwives, and the general public by means of postgraduate courses, institutes, consultations, prenatal and child health clinics, mothers' classes, midwife classes, individual instructions for parents and midwives, and by the distribution of printed matter. Special instruction in the care of premature babies and the necessary equipment for this care, including electric incubators, are being provided throughout the state.

Incubators: Any physician needing an incubator for the care of a premature infant in the home or for emergency use in a hospital may borrow it from the local health department or directly from the Division of Maternal and Child Health. The county public health nurse will give instruction in the use of the incubator and in nursing care of the premature infant to the family or to hospital personnel. Both electric and nonelectric incubators are available—both safe for oxygen. A limited number of electric incubators are available for indefinite loan to hospitals.

Premature Kits: Loan kits containing all that is needed for home care of premature infants are available from county health units. The public health nurse will instruct the family in the

use of the kit, which contains linen for the incubator, premature-size clothing, and feeding and bathing equipment.

Public Health Nursing Services: Although local health units are understaffed, public health nursing service will be given on request of the physician to antepartum and postpartum patients and to infants and children. This will consist of instructions to the patient or family as to how to carry out the physician's orders under conditions found in the home. At the request of the physician instructions on hygiene and diet are given, and urinalysis and blood pressure determination is done for maternity patients. Instructions given are checked with the physician and findings reported to him at once. Mothers' classes at which demonstrations and motion pictures on baby care are shown will be organized on request.

Nutrition: The nutrition service gives consultation to all medical directors and public health nurses relative to diet during pregnancy, lactation, infancy, preschool age, school age, adulthood, and in disease. Literature which is easy to read and understand is prepared on many of the above topics and sent to local health units for distribution. In clinics, home visits, or classes effective ways to teach nutrition are demonstrated. The same advisory service and educational literature are available to physicians on request in regard to problems with their patients. Consultation service is also available to institutions which the physicians serve if such institution does not have a trained dietitian or nutritionist.

Literature for Distribution: Booklets and leaflets on maternity and child care and child management for distribution to patients may be obtained from the local health department offices or directly from the Division of Maternal and Child Health.

Motion Pictures and Books from Library: Books on maternal and child health, child development, school health and preventive mental health, and motion picture films on maternal and infant care, on school health, and on physiology are available from the Library of the State Department of Health.

Courses for Graduate Nurses: (1) Scholarships for postgraduate courses in obstetric or pediatric nursing are available for supervising nurses at the request of hospitals. (2) Arrangements are being made for a brief refresher course in pediatric nursing for all graduate nurses, to be given next year in one or more centers in Arkansas.

Lectures for Medical Societies: The Division

of Maternal and Child Health has a special fund which may be used to assist medical societies in obtaining lecturers in the fields of obstetrics, pediatrics, and preventive mental health.

Refresher Courses for Physicians: Limited numbers of scholarships providing for actual expenses at brief refresher courses in pediatrics or obstetrics are available from time to time as announced in The Journal of The Arkansas State Medical Society.

Emergency Maternity and Infant Care Program: Physicians and hospitals in Arkansas have been paid \$1,362,702.21 from the beginning of the program to November 1, 1946, and \$100,585.49 more is set aside to pay for care already authorized. Admissions under the program have decreased rapidly with demobilization, and will apparently have almost ceased by the time Congress declares the emergency ended. However, as misunderstandings still arise, particularly with veterans, certain features of the program will be reviewed here:

Eligibility: This is limited to wives and infants under one year of age of men who were in one of the lower four pay grades at some time during the wife's pregnancy or, in case of infants, during the child's first year of life. Care given before the husband's eligibility status began cannot be paid for. Authorization for care already given can be made only if all the rules of the program have been adhered to; for instance, hospital care must have been in a participating hospital, and physician and hospital **both** must agree to repay **all** money paid to them for this care before bills are submitted to the state and a signed statement from the patient or parent that this repayment has been made must be filed before vouchers can be honored.

Pediatric care: An infant born under the program or whose father was in an eligible grade at some time in the mother's pregnancy or the baby's first year of life remains eligible for care during illness until he is a year old. The mother needs to sign only the first application for care, but the physician must sign a new request for authorization for care for each illness. Well child care or immunizations are not provided under this program in Arkansas.

Care covered by authorization: Maternity care is on a case basis and included all care for the mother from the effective date of authorization until six weeks after delivery and care of the baby for the first two weeks of life, except home or hospital visits for non-obstetric complications which are authorized separately. Pediatric care includes all care given the infant during the time of the authorization. Hospital care in-

cludes all services furnished by the hospital. Consultation by a qualified consultant, assistance at operation, services of an anesthetist (physician or graduate nurse), special registered nursing service in cases of severe illness, payment of blood donor, and unusually expensive drugs (not those furnished by hospital) may be authorized separately on request by the physician. Except for the special services that may be authorized, when a physician signs an application he agrees to take care of the case for the agreed fee "for better or worse." Fees are based on an average fee designed to balance the more difficult and less difficult cases.

Care in hospitals: If the patient is cared for in a hospital physician's care cannot be authorized if the patient or someone in her behalf is to pay for the hospital care, and hospital care cannot be authorizezd if the patient or someone in her behalf is to pay for physician's care.

HYGIENIC LABORATORY

The Hygienic Laboratory was established in 1917 to aid in the diagnosis of such communicable diseases as might involve the health of the public in the several communities of the State. It provides laboratory aid to County and City Health Officers, as well as to all physicians in the State, in making examinations of specimens from persons presumably afflicted with or carriers of a communicable disease. While certain specimens submitted by laymen will be examined and reported on, this practice is not encouraged, as the correct interpretation of the laborary report is of the greatest importance. It is believed that the attending physician is best able to make this interpretation and it is recommended that all specimens be referred by him. No charge is made for any of its services but physicians should submit specimens only from those patients who are unable to pay for this service elsewhere. Purely clinical laboratory tests such as routine urine examinations, blood counts, and blood chemistry are not considered to have public health significance and such service is not offered.

The laboratory is able to examine suitable specimens for the following diseases:

Amoebic Dysentery (cysts)	Rabies
Bacillary Dysentery	Syphilis
Diphtheria	Tuberculosis
Gonorrhea	Tularemia
Intestinal Parasites	Typhoid fever
Malaria	Typhus fever (weil-felix)
Meningitis	Undulant fever
Paratyphoid fever	

Spinal fluids are cultured for specific infectious diseases or are examined for evidence

of syphilis, the gum mastic curve and total protein being reported in addition to the Kolmer-Wassermann test.

Bacteriological examinations of public and semi-public water supplies are made on samples collected by some member of the health organization, or by a layman trained in the sampling of such supplies, when these samples are submitted in the bottles furnished by the laboratory. Samples submitted in other containers will not be examined.

Chemical analyses of public water supplies are made only when requested by the State Sanitary Engineer for certain investigative purposes.

Due to the inability to establish branch laboratories and to lack of sufficient personnel in the Hygienic Laboratory, it is not possible to make routine examinations of milk samples. When epidemiological surveys indicate the possibility of a certain milk supply being the source of an epidemic, special studies are made as required by the epidemiologist.

Tissues to be examined for pathology are referred by the Hygienic Laboratory to the Department of Pathology, University of Arkansas School of Medicine and their reports are mailed directly to the submitting physician. A properly filled out history form must accompany the tissue before it will be accepted by the Medical School.

Typhoid vaccine is prepared by the Laboratory and other biologicals are purchased by the State from approved commercial supply houses. These biological preparations are distributed to all County and District Health Units and are available without cost to the private physician for the prevention and treatment of communicable diseases in his indigent patients.

Mailing containers and blank forms suitable for all types of specimens also may be obtained from the various County or District Health Units.

THE ARKANSAS BUREAU OF VITAL STATISTICS

While Act No. 96 of the General Assembly of 1913, provided that "The State Board of Health shall establish a Bureau of Vital Statistics and provided an adequate system for the registration of births and deaths," the Bureau did not begin to function until February 1, 1914.

In the beginning only births and deaths were registered, but as the new bureau continued to function and the need for additional statistical data became apparent, the activities were expanded so as to include data regarding marriages, divorces and adoptions. Accordingly

acts were subsequently enacted into law providing for these additional activities.

In the year 1917 Act No. 149 was passed providing that: "All marriages occurring within this State shall be registered with the State Registrar of Vital Statistics."

Section 11 of this act provides that the clerks of the county and probate courts shall, in addition to the fee of one dollar provided in Section 5196, Kirby's Digest, collect from the applicant for a marriage license a registration fee of fifty cents, and the county and probate clerk shall, not later than the fifth day of each month, forward to the State Registrar that part of the license which is to be detached and forwarded and which shall contain in brief those facts set forth in the license.

In the year 1923 the legislature passed Act 612 which provides that "all divorce decrees or dismissals filed in this State shall be registered with the State Registrar of Vital Statistics and that forms or coupons for reporting such decrees or dismissals be forwarded to the State Registrar on or before the fifth day of each month, and that the Chancery or Circuit Clerk collect a fee of fifty cents from the plaintiff in the Bill of Divorce and make a deposit of such fees collected in the State Treasury on or before the 5th day of each month.

Under Act 137 of the General Assembly of 1935 the provision for collection of statistics regarding adoptions was placed on record. This act provided that the clerks of the county and probate court on or before the fifth day of each month shall certify to the State Registrar of Vital Statistics all adoption decrees, annulments of adoption, and revocation orders of adoptions. That the form or coupon furnished shall state the prior name, the date and place of birth of the child and the name and address of the parents by adoption; the new name of the child, if any, and the date of the order of adoption, annulment or revocation, and the court issuing same. A fee of fifty cents is stipulated for this service, the fee to be deposited in the State Treasury on or before the fifth day of each month. Hence as time has moved on the Bureau of Vital Statistics has not only become a repository for birth and death certificates but also receives data on other statistics of great importance to the public.

Arkansas is one of the States where the face of the original record cannot be changed under the law, hence when corroborative evidence is produced showing that some item or items on the original certificate contain erroneous information, instead of correcting the certificate,

affidavits are used. Under this system when a photostat is requested the certificate containing erroneous information is printed as it stands in its original state, and an affidavit stating which item is incorrect is printed also and placed as a rider under the original photostat. Legislation correcting this procedure is expected to be passed at the next session of the General Assembly.

DIVISION OF TUBERCULOSIS CONTROL

The Division of Tuberculosis Control has had on order since the latter part of June, 1945, three mobile X-ray units. We have, as yet, not received any of these because of the series of strikes. However, two of the machines are now nearing completion and may be received within the next 30 days. The third will probably not arrive until early next year. All three of the machines are to be 70 mm. mobile units, equipped with the Morgan Photo-timer, a device that does away with individual chest measurements and assures uniform density of all films. There is, in addition, a \$9,000 unit donated by the County Tuberculosis Association to the Sebastian County Health Department, which has not yet been delivered. Our case finding activities have increased, because of greater interest by the local and county health departments, brought about by a series of training courses on tuberculosis. Other units now in operation, include a 70 mm. machine at the City Health Center, a 35 mm. at the State Hospital and the 35 mm. that is in current use by this department.

The Central Case Register for the recording of all known cases of tuberculosis has been established in the state office. This register, not only enables us to know for the first time, what the actual tuberculosis problem is in this state, but also serves as an indicator for the better direction of attack on the disease and the evaluation of results. The register was begun in August, 1945, and is now operating on a state level. Plans for county registers have been drawn up and we hope to have them functioning soon.

Of extreme value in the follow-up of patients by the public health departments, has been the excellent cooperation of the state sanatoria (in the face of critical shortage of personnel), in the furnishing of vital information on the flow of patients to and from these institutions. The system of interchange of such information from the sanatoria to the local health departments and vice versa has been developed and is now in operation using the Division of Tuberculosis

MEMBERSHIP ROSTER OF THE ARKANSAS MEDICAL SOCIETY—1946

ARKANSAS COUNTY

Browning, L. G. Stuttgart
 *Champion, W. T. Stuttgart
 Davis, Geo. Gillett
 *Dickens, Homer DeWitt
 *Drennen, S. A. Stuttgart
 *Fowler, A. H. Humphrey
 *John, Milton C., Jr. Stuttgart
 *Rasco, C. W., Jr. DeWitt
 *Swindler, E. B. Stuttgart
 *Van Duyn, T. S. Stuttgart
 Wassell, C. M. Hot Springs
 *Whitehead, R. H., Sr. DeWitt
 *Whitehead, R. H., Jr. DeWitt
 Wilson, J. G. Keo

ASHLEY COUNTY

*Barnes, L. C. Hamburg
 Boykin, S. R. Monahans, Tex.
 Burger, Robert A. Crossett
 *Burt, E. G. Bastrop, La.
 *Cockerham, H. E. Portland
 Cone, A. E. Portland
 Cothorn, W. R. Crossett
 *Crandall, M. C. Wilmot
 *Davis, Elmer L. Foreman
 Dew, Hogan A. Marlow, Okla.
 Fitch, Leston E. Crossett
 Hawkins, M. C. Parkdale
 Hipsley, R. W. Crossett
 Mask, D. L. Crossett
 Mobley, Max J. Crossett
 Parker, J. L. Snyder
 Regnier, Geo. G. USA
 *Regnier, W. A. Crossett
 Smith, M. L. Crossett
 Smith, D. V. Morganfield, Ky.
 *Spivey, C. E. Crossett
 *White, E. O. Hamburg
 Wood, J. T. Crossett
 Wood, Julian D. USA

BENTON COUNTY

Atkinson, R. M. Bentonville
 Buckelew, H. H. Rogers
 Chastain, M. W. New York, N. Y.
 Colette, E. L., Jr. Rogers
 Compton, Neil Bentonville
 Curry, W. J. Rogers
 DeBolt, G. C. Rogers
 Duckworth, F. M. Siloam Springs
 Eubanks, F. G. Decatur
 Gullledge, J. F. Siloam Springs
 Harrison, A. J. Springdale
 Highfill, E. J. Cave Springs
 Hodges, Guy Rogers
 Hughes, G. A. Siloam Springs
 Huskins, J. D. Siloam Springs
 Jackson, J. L. Bentonville
 Jennings, W. E. Rogers
 Kennedy, J. J. Carnegie, Okla.
 Love, Geo. M. Rogers
 Moore, W. A. Rogers
 Peacock, A. L. Gentry
 Pickens, James L. Rogers
 Pickens, W. A. Bentonville
 Thompson, A. W. Gurdon
 Thompson, J. S. Gravette
 Williams, J. R. Siloam Springs
 Wilson, C. S. Siloam Springs

BOONE COUNTY

Adams, A. V. Yellville
 *Bradley, W. A. Harrison
 *Fowler, Ross Harrison
 Frailey, D. M. G. Mt. Judea
 Gladden, J. C. USA
 *Gladden, J. G. Harrison
 *Jackson, Ulys Harrison
 *Kirby, H. V. Harrison
 Morrow, J. J. Cotter
 McCoy, O. B. Harrison
 *Owens, D. L. Harrison
 Poyner, W. H. Harrison
 *Rust, M. E. Pawhuska, Okla.
 †Thompson, James I. Yellville
 Watkins, W. L. Alpena Pass
 Weast, L. M. Yellville

BRADLEY COUNTY

Belcher, Charles D. USN
 *Crow, Marvin B. Warren
 Crow, Marvin T. Warren
 *Crow, Merle T. Warren
 *Hunt, W. J. Warren
 Martin, Rufus Warren
 Reasons, W. B. Hermitage
 Roark, W. N. Hermitage

CARROLL COUNTY

Blackwood, J. C. Eureka Springs
 Bohannon, J. H. Berryville
 Butt, W. A. Green Forest
 *Carter, A. L. Berryville
 Donaldson, C. W. Green Forest

The Roster of the Arkansas Medical Society has been placed in the center of this issue to permit its ready removal for filing.

John, J. F. Eureka Springs
 *McCurry, D. K. Green Forest
 Roberts, D. C. Berryville
 Webb, J. H. Eureka Springs

CHICOT COUNTY

Baker, E. E. Dermott
 *Barlow, B. E. Dermott
 †Barlow, E. E. Dermott
 Binns, B. Z. Eudora
 *Bottorff, M. K. Lake Village
 *Burge, J. H. Lake Village
 *Clark, B. C. Lake Village
 Craig, W. A. Eudora
 Douglas, S. W. Eudora
 *Easterling, W. D. Lake Village
 McGehee, E. P., Sr. Lake Village
 *McGehee, E. P., Jr. Lake Village
 *Thompson, J. A. Dermott

CLARK COUNTY

Barnett, J. R. Arkadelphia
 Bremer, J. P. Point Cedar
 Bryant, R. L. Arkadelphia
 Doane, S. N. Arkadelphia
 †McLain, J. T. Gurdon
 Norton, J. M. Arkadelphia
 Pate, J. N. Arkadelphia
 Reid, Joe W. Arkadelphia
 Toombs, Vernon L. Gurdon
 Townsend, Chas. K. Arkadelphia

CLAY COUNTY

Blackwood, W. J. Rector
 Clopton, O. H. Rector
 Futrell, J. B. Rector
 Hiller, J. P. Pollard
 Jones, F. H. Piggott
 Latimer, N. J. Corning
 McGuire, J. E. Piggott
 Turner, W. E., Sr. Piggott
 Turner, W. E., Jr. Piggott

CLEVELAND COUNTY

Dunman, B. E. New Edinburg
 Hancock, W. G. Rison
 Johnson, S. C. Kingsland
 Scroggin, J. H. Kingsland

COLUMBIA COUNTY

Baker, J. J. Magnolia
 Horn, W. H. Magnolia
 Hudnall, A. T. Taylor
 Hunt, W. J. Magnolia
 Jones, T. H. Waldo
 Jordan, T. S. Magnolia
 Kitchens, H. M. Waldo
 McLeod, G. F. Magnolia
 Mullins, G. E. Emerson
 Ruff, John L. Magnolia
 Rushton, J. F. Magnolia
 Sizemore, Paul Magnolia
 Smith, P. M. Magnolia
 Souter, A. J. Waldo
 Weber, Chas. L. Magnolia
 Wilson, John H. Magnolia

CONWAY COUNTY

Close, E. Jerusalem
 Etheridge, C. E. Morrilton
 Halbrook, J. F. Plumerville
 Hardison, T. W. Morrilton
 Jones, R. A. Perry
 Matthews, J. M. Morrilton
 Mobley, H. E. Morrilton
 Williams, C. R. Morrilton

CRAIGHEAD-POINSETT COUNTY

Alcott, Geo. B. Weiner
 Barrett, E. R. Jonesboro
 *Berry, W. E. Jonesboro
 *Blanton, M. E. Jonesboro
 Burge, H. G. Nettleton
 *Cohen, O. T. Jonesboro
 Cooper, James O. USN
 Dickerson, D. A. Marked Tree
 *Ellis, Ira W. Monette
 Faris, John C. Jonesboro
 Harris, Chas. P. Jonesboro
 Hartwig, C. D. Lake City
 Horner, E. J. Jonesboro
 Jones, J. H. Lepanto
 *Jones, J. K. Lepanto
 Ledbetter, Jos. W. Jonesboro
 *Lutterloh, P. W. Jonesboro
 *McAdams, H. H. Jonesboro
 *McCurry, J. H. Cash
 †McDaniel, E. C. Tyronza
 *McDaniel, L. H. Tyronza

*Modelevsky, A. C. Jonesboro
 Moreland, W. H. Tyronza
 Nisbett, Frank Brookland
 Overstreet, W. C. Jonesboro
 *Pierce, J. O. Marked Tree
 Ramsey, J. W. Jonesboro
 *Reagan, C. H. Marked Tree
 Shanlever, R. C. Jonesboro
 Shepherd, W. F. Jonesboro
 *Sloan, Ralph M. Jonesboro
 Smith, O. V. Trumann
 Smith, W. H. Bono
 *Stroud, E. J. Jonesboro
 *Stroud, H. A. Jonesboro
 *Stroud, P. T. Jonesboro
 Tullos, A. M. Trumann
 *Verser, Joe Harrisburg
 *Verser, W. W. Harrisburg
 *Willett, R. H. Jonesboro

CRAWFORD COUNTY

Bennett, B. L. Van Buren
 Boomer, F. A. Van Buren
 †Campbell, C. J. Mulberry
 Cowan, Riley Van Buren
 Crigler, J. R. Alma
 Dixon, Chas. B. Van Buren
 Galloway, O. R. Alma
 Grant, S. C. Mulberry
 Kirkland, S. D. Van Buren
 Kirkland, S. S. Sallisaw, Okla.
 Kirksey, O. J. Mulberry
 Porter, James O. USA
 Ramey, Clyde Van Buren
 Savery, H. W. Van Buren

CRITTENDEN COUNTY

Bond, S. D., Jr. USA
 *Hare, T. S. Crawfordsville
 Hamilton, R. B. West Memphis
 McVay, L. C. Marion
 Parker, A. C., Sr. Clarksdale
 Parker, A. C., Jr. USA
 Purnell, R. L. Marion
 *Ray, Robert H. Earle
 Stevenson, B. M. West Memphis

CROSS COUNTY

Barr, A. F. Cherry Valley
 Griffin, W. L. Cherry Valley
 Hickman, R. L. Hickory Ridge
 Lamb, J. W. Wynne
 Longest, Ruffin Wynne
 Peterson, T. A. Wynne
 Price, Thomas G. Wynne
 Smith, R. S. Parkin
 Wilson, Thomas Wynne

DALLAS COUNTY

Atkinson, H. H. Fordyce
 Cheatham, H. A. Princeton
 Ellis, W. S. Fordyce
 Estes, E. E. Fordyce
 Estes, S. J. Fordyce
 Lisenbee, A. M. Sparkman
 Taylor, J. E. M. Sparkman

DESHA COUNTY

Biscoe, Gibbs Dumas
 Biscoe, Gore Dumas
 Chennault, J. C. McGehee
 *Hellums, J. H. Dumas
 Kimbro, C. H. Tillar
 Leverett, Chas. McGehee
 MacCammon, Vernon Arkansas City
 Morton, Roscoe F. St. Louis, Mo.
 *Moss, Swan McGehee
 *Rands, H. A. Dumas
 *Smith, H. T. McGehee
 Siler, Kenneth A. Dumas
 *White, R. F. McGehee

DREW COUNTY

Binns, Vann C. Monticello
 Holder, J. B. Monticello
 Hyatt, C. Lewis Monticello
 Hyatt, Robert F. Monticello
 Moseley, J. H. Monticello
 Pope, M. Y. Monticello
 Price, J. P., Jr. Monticello
 †Wilson, J. S. Monticello

FAULKNER COUNTY

Archer, C. C., Jr. Conway
 Brooke, H. C. USA
 Dawson, R. L. Bee Branch
 Downs, J. H. Vilonia
 Dunnaway, E. L. Conway
 †Dunnaway, L. S. Conway
 Fraser, N. E. Conway
 Harrod, George Conway
 Ingram, E. M. Enola
 Johnson, W. W. Valhalla, N. Y.
 Kitley, J. R. Mayflower
 Lieblong, J. S. Greenbrier
 Mabry, Tom Vilonia
 McCollum, I. N. Conway

Sneed, J. W. Conway
Taylor, R. L. Conway

FRANKLIN COUNTY

Bollinger, W. H. Charleston
Gibbons, W. H. Ozark
Jewell, I. H. Paris
Pillstrom, E. W. Ozark
Porter, W. C. Ozark

GARLAND COUNTY

Adams, Frank M. Hot Springs
*Bieri, E. J. Hot Springs
*Black, T. N. Hot Springs
*Blackshare, W. M. Hot Springs
Bollmeier, L. N. Hot Springs
*Boydstone, J. O. Hot Springs
Brewer, Howell USA
Browning, E. R. Hot Springs
Burch, N. B. Hot Springs
*Burton, F. M. Hot Springs
*Casada, B. F. Hot Springs
*Chamberlain, W. W. Hot Springs
*Chenault, H. Clay Little Rock
*Chestnutt, J. H. Hot Springs
*Clardy, Floyd Hot Springs
Coffey, G. C. Hot Springs
Connell, De Bert W. Hot Springs
Connell, W. H. Hot Springs
*Daniel, R. L. Hot Springs
*Diederich, V. P. Hot Springs
Ellsworth, E. H. Hot Springs
*Fletcher, Geo. B. Hot Springs
*Garratt, C. E. Hot Springs
Goetze, Dorothy Hot Springs
Goodrum, W. A. Hot Springs
*Gray, W. E. Hot Springs
*Hebert, Gaston A. Hot Springs
Holmes, M. Charlotte Hot Springs
Hogaboom, G. M. Hot Springs
Jackson, Haynes G. Hot Springs
Jackson, W. W. Hot Springs
Jarrell, Foster Hot Springs
*King, O. H. Hot Springs
*Klugh, W. G. Hot Springs
*Kootsey, J. S. Hot Springs
Lee, D. C. Hot Springs
Lee, Wm. R. Hot Springs
Lutterloh, C. H. Hot Springs
Martin, L. G. Hot Springs
McKenzie, E. M. Hot Springs
Moss, C. S. Hot Springs
†Nims, C. H. Hot Springs
Pate, C. N. Hot Springs
Porter, W. F. Hot Springs
*Power, A. R. Hot Springs
Purdum, E. A. Hot Springs
*Proctor, J. M. Hot Springs
*Reed, L. E. Hot Springs
*Rowland, Driver Hot Springs
Rowland, J. F. Blytheville
Rushing, F. E. Hot Springs
Scott, Jeff O. Hot Springs
Scully, F. J. Hot Springs
Shaw, E. I. Hot Springs
Shebesta, Bessey H. Muskegon, Mich.
Short, Z. N. Hot Springs
*Smallwood, R. E. Arkadelphia
*Smith, E. M. Hot Springs
*Smith, O. A. Hot Springs
*Smith, W. K. Hot Springs
Stell, J. S. Hot Springs
*Stough, D. B. Hot Springs
*Strachan, J. B. Hot Springs
*Tarleton, F. S. Hot Springs
*Thompson, E. L. Hot Springs
*Tribble, A. H. Hot Springs
*Wade, H. K. Hot Springs
*Wade, H. K., Jr. USA
*Weil, S. D. Hot Springs
Wilkins, J. S. Hot Springs
*Wright, H. K. Hot Springs

GRANT COUNTY

Cole, C. F. Prattsville
Cole, John W. Sheridan
Hope, O. W. Sheridan
Kelly, M. F. Sheridan
Kelly, O. R. Sheridan

GREENE COUNTY

Blackwood, J. D. Jonesboro
Bridges, G. P. Paragould
Dillman, J. A. Paragould
Ellington, W. E. Paragould
Haley, R. J., Jr. Paragould
Hudgins, J. J. Paragould
Hutcherson, R. L. Delaplaine
Kellelt, M. A. Paragould
Lamb, W. M. Paragould
Maddox, A. H. Paragould
McKelvey, Earle Paragould

HEMPSTEAD COUNTY

*Branch, J. W. Hope

Cannon, G. E. Hope
Gentry, J. E. McCaskill
Heller, H. G. Hope
*Lile, L. M. Hope
*Martindale, J. G. Hope
*McKenzie, Jim Hope
Robins, W. F. Ozan
*Smith, Don Hope

HOT SPRING COUNTY

*Barrier, W. F. Malvern
Blakely, G. W. Malvern
*Brown, H. L. Malvern
*Hodges, T. L. Bismarck
*Hodges, W. G. Malvern
McCray, E. H. Malvern
*McCray, R. V. Malvern
Peters, Claude F. Malvern
*Pool, C. S. Malvern

HOWARD-PIKE COUNTY

Alford, T. F. Murfreesboro
Ballew, L. N. Dierks
Burleson, J. J. Antonine
†Dildy, E. V., Sr. Nashville
Dildy, E. V., Jr. Nashville
Duncan, M. D. Murfreesboro
Ferguson, F. F. Nashville
Goforth, A. J., Jr. Nashville
Gould, W. B. Glenwood
Holt, H. H. Nashville
Jones, W. J. Glenwood
Junell, C. M. Mineral Springs
Simpson, W. B. Nashville
Toland, Wm. H. Nashville
Waldrop, J. G. Nashville

INDEPENDENCE COUNTY

Barger, O. B. Harrisonville, Mo.
Barnett, J. C. Heber Springs
*Bone, O. L. Newark
Brown, H. H. Charlotte
Calaway, W. H. Batesville
Chambers, S. W. Mountain Home
*Churchill, C. A. Batesville
Copp, Noel Calico Rock
*Craig, M. S. Batesville
*Evans, L. T. Batesville
Gray, E. M. Mountain Home
Gray, W. Paul Batesville
Harris, C. L. Melbourne
Headstream, J. W. Batesville
*Hinkle, C. G. Batesville
Hooper, Rector Batesville
*Jeffery, Paul H. Bethesda
*Johnston, O. J. T. Batesville
Jones, W. A. Los Angeles, Calif.
Junkin, Ruth H. Batesville
*Ket, W. J. Batesville
Landers, Gardner Roanoke, Va.
Matthews, J. T. Heber Springs
McAdams, V. D. Cord
*Monfort, J. J. Batesville
Robertson, S. N. Sulphur Rock
Roe, C. E. Viola
Saltzman, B. N. Mountain Home
Weathers, J. L. Salem
Wood, O. S. Salem
*Wyatt, F. Q. Batesville

JACKSON COUNTY

Best, A. L. Newport
Elton, A. M. Newport
Erwin, Ira H. Newport
Gray, C. R. Newport
Harris, M. L. Newport
Heinemann, Sol Newport
Ivy, J. B. Tuckerman
Jackson, J. J. Newport
Jamison, O. A. Tuckerman
Justus, Shelby Swifton
Kimberlin, K. K. Tuckerman
Norris, R. O. Tuckerman
Owen, Henry M. Little Rock
Rodman, T. N. Leachville
Walker, H. O. Newport
Williams, Thos. E. Newport

JEFFERSON COUNTY

†*Beard, J. C. Pine Bluff
*Bruce, W. H. Pine Bluff
Capel, C. B. Pine Bluff
*Capel, H. T. Pine Bluff
Carruthers, C. K. Pine Bluff
*Causey, H. A. Pine Bluff
*Clark, O. W. Pine Bluff
*Cunningham, T. J. Pine Bluff
Cunningham, T. J., Jr. Pine Bluff
*Dickins, R. D. Pine Bluff
Garratt, A. A. Pine Bluff
*Hames, Fred Pine Bluff
Higinbotham, C. J. Pine Bluff
*Hundley, Louis K. Pine Bluff
Jenkins, J. S. Pine Bluff
*Lowe, W. T. Pine Bluff
*Luck, B. D., Jr. Pine Bluff
†Luck, B. D., Sr. Pine Bluff

*Maynard, R. E. Pine Bluff
*McMullen, E. C. Pine Bluff
Morris, H. J. Pine Bluff
Palmer, J. T. Pine Bluff
*Payne, Virgil Pine Bluff
*Reid, Chas. W. Pine Bluff
Russell, A. R. Pine Bluff
Shelton, M. A. Wabbaseka
Simmons, Walter H. Pine Bluff
*Spillyards, J. S. Pine Bluff
*Talbot, George Pine Bluff
*Walker, John K. Pine Bluff
Woods, R. P. Altheimer

JOHNSON COUNTY

Burgess, M. E. Miami, Ariz.
Floyd, John Oark
Graves, S. M. Clarksville
*Hardgrave, Geo. L. Clarksville
*Hunt, Earle H. Clarksville
Johnston, R. H. USA
King, R. E. Harmony
*Kolb, J. M. Clarksville
Nicholas, J. P. Hagarville
Scarborough, Wm. R. Clarksville
*Shrigley, Guy P. Clarksville
*Siegel, G. R. Clarksville

LAFAYETTE COUNTY

Armstrong, R. L. Lewisville
Baker, F. E. Stamps
Keith, A. W. Stamps
McKnight, J. F. Bradley

LAWRENCE COUNTY

Ball, C. C. Ravenden
Blaine, Mitchell Mammoth Springs
Brown, W. W. Hardy
Cruse, E. J. Black Rock
Elders, J. B. Walnut Ridge
Faircloth, Robert S. Walnut Ridge
Guthrie, T. C. Smithville
Hatcher, W. W. Imboden
Henderson, A. G. Imboden
Hughes, Max Long Island, N. Y.
Hull, H. B. Mammoth Springs
Johnson, T. Z. Walnut Ridge
Kendall, W. S. Cave City
Land, J. C. Walnut Ridge
Tibbels, Charles D. Black Rock
Townsend, C. C. Walnut Ridge

LEE COUNTY

Bogart, H. D. Marianna
Chaffin, C. W. Moro
Crawford, W. S. Marianna
Hammer, J. H. Aubrey
Hays, Wm. C., Jr. Marianna
McClendon, Mac Marianna

LINCOLN COUNTY

Bailey, B. L. Star City
*Dixon, C. W. Gould
*Gardner, B. M. Star City
Johnson, R. L. Grady
Taylor, L. T. USN
†Thiollere, A. C. North Little Rock
Wood, G. C. Grady

LITTLE RIVER COUNTY

†Harding, C. A. Ashdown
*Peacock, Norman W. Ashdown
Shelton, J. G., Jr. Ashdown
Yates, E. W. Foreman

LONOKE COUNTY

Beaty, S. S. England
Brewer, J. F. Kerrs
Corn, F. A. Little Rock
Crowgey, W. B. Scott
Southall, S. A. Lonoke
Kelly, R. M. Lonoke
Ward, O. D. England
Watson, Asa C. Benton
Wells, J. B. Little Rock
Whaley, E. S. Carlisle

MILLER COUNTY

Abrams, H. K. USPHS
Boone, R. F. Covina, Calif.
Burnett, J. W. Texarkana
Collom, Allan Texarkana
*Daniel, N. B. Texarkana
Frank, C. H. Texarkana
Fuller, T. E. Texarkana
Good, L. P. Texarkana
Guthrie, James Texarkana
*Hibbitts, Wm. Texarkana
Hunt, Preston Texarkana
Harrison, R. K. Texarkana
Kemp, K. H. Texarkana
*Kirkpatrick, R. R. Texarkana
Kittrell, J. B. Texarkana
*Kittrell, T. F. Texarkana
*Kosminsky, L. J. Texarkana
*Lanier, L. H. Texarkana
Mann, Albert H. Texarkana
Middleton, B. C. Texarkana
*Murry, H. E. Texarkana
Parson, G. W. Texarkana

Pickett, R. W.	Texarkana	Nicholls, J. W.	Helena	Darnall, R. F.	Little Rock
Porter, J. T.	USA	Norton, E. F.	Marvell	Davis, J. C.	Little Rock
Priest, Perry	Texarkana	Orr, W. R.	Helena	*Day, E. O.	Little Rock
Robins, R. R.	Texarkana	Rightor, H. H.	Helena	Dean, G. O.	Little Rock
*Smith, W. D.	Texarkana	Russwurm, W. C.	Helena	†Dibrell, J. L.	Little Rock
*Tate, J. B.	Texarkana	Storm, Geo. R.	Helena	Dibrell, J. R.	Little Rock
Williams, J. F.	Texarkana	Terry, John B.	Helena	Dilby, Hal	Little Rock
MADISON COUNTY		POKE COUNTY		Dishongh, Elizabeth F.	Little Rock
Martin, C. J.	Hindsville	Campbell, C. A.	Mena	Dishongh, H. A.	Little Rock
Youngblood, Fred	Huntsville	†Hawkins, B. H.	Mena	*Donaldson, J. K.	Little Rock
MISSISSIPPI COUNTY		Lee, F. A.	Vandervoort	Drewery, L. E.	Little Rock
Atkinson, G. S.	Blytheville	Miers, E. M.	Mena	*Dykstra, D. W.	Little Rock
Beasley, J. E.	Blytheville	Norwood, Frank A.	Mena	*Easley, E. J.	Little Rock
Brownson, J. F.	Leachville	*Redman, Pierre	Mena	Eaton, J. P.	Little Rock
Campbell, J. H.	Marvell	POPE-YELL COUNTY		†Eschweiler, Paul C.	Little Rock
Dozier, Floyd	Marianna	Cale, W. C.	Atkins	Estes, S. J.	Little Rock
Elliott, John	Blytheville	Gardner, Ellis	Russellville	*Eubanks, R. M.	Little Rock
Ellis, N. B.	Wilson	Gardner, L.	Russellville	Farris, Guy R.	Little Rock
Harwell, C. M.	Osceola	Gilliam, A. D.	Belleville	Ferguson, R. L.	Vermillion, S. D.
Hosey, N. R.	Marvel	Henry, J. A.	Russellville	Freedman, Theo.	Little Rock
Hollingsworth, G. F.	Dyess	Hood, Robert	Russellville	*Fulmer, D. W.	Little Rock
Hubener, L. L.	Blytheville	Hoyt, Jonathan	Waldron	*Fulmer, P. M.	Little Rock
Hudson, T. F.	Luxora	Hunt, E. C.	Ola	Fulmer, S. C.	Little Rock
Husband, F. L.	Blytheville	Linton, A. C.	Hector	Fulton, Wm. L.	Little Rock
Johnson, I. R.	Blytheville	Millard, Roy I.	Russellville	Gann, Dewell	Little Rock
Johnson, R. L.	Blytheville	Montgomery, H. L.	Gravelly	*Gay, E. C.	Little Rock
Mahan, T. K.	Blytheville	Moore, J. H.	Delaware	Gordon, Vida	Little Rock
Martin, J. A.	Leachville	†Smith, L. M.	Russellville	*Gray, A. F.	Little Rock
Massey, L. D.	Osceola	Smith, R. L.	Russellville	Gray, Edwin F.	Little Rock
Moseley, K. T.	USA	Stanford, J. M.	Russellville	Gray, H. F.	Little Rock
Polk, J. T.	Keiser	Tate, A. B.	Russellville	*Gray, Oscar	Little Rock
Ratton, R. W.	Manila	Teeter, Brooks R.	Russellville	Gray, John T.	Little Rock
Saliba, J. A.	Blytheville	Young, W. O. Jr.	Russellville	Grayson, W. B.	Little Rock
Sheddan, W. J.	Osceola	PRAIRIE COUNTY		Greutter, J. E.	Little Rock
Sims, H. C.	Blytheville	Adams, Edward	DeValls Bluff	*Hardean, D. R.	Little Rock
Skaller, M. L.	Corpus Christi, Tex.	Calley, J. H.	USA	Harrell, Wm. B.	Texarkana
Stevens, C. C.	Blytheville	Crockett, W. H.	Benton	Harris, F. W.	Little Rock
Turrentine, P. W.	Osceola	Gilliam, J. C.	Des Arc	Harris, Robert P.	Sarasota, Fla.
Walls, J. M.	Blytheville	†Lynn, J. R.	Hazen	Hayes, C. K.	Little Rock
Webb, Floyd	Blytheville	Matthews, Travis	Hazen	*Hayes, J. D.	Little Rock
Wilson, C. E.	Blytheville	Parker, W. M.	DeValls Bluff	*Hayes, J. H.	Little Rock
MONROE COUNTY		*Porter, T. G.	Hazen	*Henry, C. R.	Little Rock
*Boswell, W. L.	Clarendon	PULASKI COUNTY		Henry, R. L., Jr.	Little Rock
*Dalton, M. L.	Brinkley	*Aday, J. Leo	Little Rock	Herron, John T.	Little Rock
Martin, W. H.	Holly Grove	†Agar, John S.	Little Rock	*Higgins, H. A.	Little Rock
*McKnight, C. H.	Brinkley	Alford, T. Dale	Chicago, Ill.	Hill, Harlan H.	Little Rock
*McKnight, E. D.	Brinkley	*Allen, H. R.	Little Rock	*Hollenberg, H. G.	Little Rock
Mohler, D. A.	Brinkley	Almaden, Phillip J.	Little Rock	Hollis, N. T.	Little Rock
MONTGOMERY COUNTY		Anderson, C. C.	Little Rock	Holmes, G. M.	Little Rock
Freeman, W. D.	Mt. Ida	*Anderson, P. R.	Little Rock	Holmes, H. C.	Little Rock
McLean, J. H.	Caddo Gap	*Arkebauer, C. A.	Little Rock	Holt, L. G.	Little Rock
Stueart, J. B.	Norman	*Armstrong, H. M.	Little Rock	Hoover, P. W.	Little Rock
Watkins, G. E.	Mt. Ida	Askew, J. B.	USPHS	Hundley, John M.	Little Rock
NEVADA COUNTY		Atkinson, Shelby	North Little Rock	Hundling, H. W.	Little Rock
Buchanan, A. S.	Prescott	Ault, Chas. C.	Little Rock	Hyatt, D. T.	Little Rock
Cox, J. E.	Rosston	*Autry, D. H.	Little Rock	Jackson, Robert H.	Little Rock
Hairston, G. G.	Prescott	*Autry, P. G.	Little Rock	*Johnson, Glenn H.	Little Rock
Harrell, L. J.	Prescott	Baker, Clark M.	Kennett, Mo.	*Jones, Erner	Little Rock
Hesterly, J. B.	Prescott	Banks, Jeff	Little Rock	*Jones, H. Fay H.	Little Rock
Hirst, O. G.	Prescott	*Barrier, L. F.	Little Rock	Jones, J. E.	Little Rock
Kennedy, J. W.	Prescott	Beasley, Grace Allnutt	North Little Rock	Jones, Robert D.	Little Rock
McDaniel, T. W.	Boughton	Beck, R. W.	Little Rock	Junkin, S. P.	Little Rock
Pool, W. B. H.	Rosston	*Bennett, B. A.	Little Rock	Kennedy, Howard U.	Little Rock
Rouse, B. H.	Prescott	*Bizzell, Ross	Little Rock	Kilbury, M. J.	Little Rock
OUACHITA COUNTY		Black, M. W.	Little Rock	Kilbury, M. J., Jr.	Little Rock
*Byrd, J. E.	Camden	Blakely, R. M.	Little Rock	Kirby, Jesse M.	Little Rock
†Clemens, J. P.	Stephens	Blankford, G.	Los Angeles	Kolb, A. C.	Little Rock
*Dalton, Perry	Camden	Boyle, R. M.	USA	Kolb, Agnes C.	Little Rock
*Early, C. S.	Camden	*Briggs, B. P.	Little Rock	Kolb, B. T.	Little Rock
Glasscock, R. E.	Bearden	*Brooks, C. M.	Little Rock	*Kory, R. C.	Little Rock
Hearnsberger, Henry	Stephens	Brown, Martha M.	Little Rock	*Lamb, W. A.	Little Rock
*Jameson, J. B.	Camden	*Brown, T. D.	Little Rock	Lamon, J. E.	Little Rock
*Kennerly, R. C.	Camden	Burgess, T. E.	Little Rock	*Langston, W. C.	Little Rock
*Magness, W. C.	Camden	Burns, W. M.	Little Rock	*Law, R. A.	Little Rock
*McAllister, J. P.	Camden	Byrd, L. M.	Little Rock	*Lawson, Mason	Little Rock
*McGill, S. D.	Camden	Calcote, R. J.	Little Rock	Levy, J. S.	Little Rock
Meek, Tom J.	Camden	Caldwell, Robert	Little Rock	Lewandowski, M. S.	Phoenix, Ariz.
*Miller, John H.	Camden	Carangelo, John	Little Rock	Lewis, G. V.	Little Rock
*Partee, N. G.	Camden	Carruthers, F. W.	Little Rock	Lewis, H. C.	Little Rock
Plunkett, C. M.	Camden	Cavener, Jessie L.	Little Rock	*Longstreth, Alvin E.	Little Rock
*Powell, B. V.	Elliott	Cazort, Alan G.	Little Rock	Lyons, V. E.	North Little Rock
*Rhine, T. E.	Camden	Champion, J. P.	Little Rock	*Mahoney, Paul L.	Little Rock
*Rhinehart, J. S.	Thornton	Cheairs, D. T.	Little Rock	*McCaskill, M. E.	Little Rock
*Robins, R. B.	Camden	Chesnutt, C. R.	Little Rock	McCaskill, M. R.	Little Rock
*Robins, R. R.	Camden	Chesnutt, C. R., Jr.	USA	McClain, M. D.	Little Rock
Rushing, J. L.	Chidester	*Choate, H. L.	Little Rock	*McLochlin, R. E.	Little Rock
Schirmer, Roy E.	Camden	*Church, B. L.	North Little Rock	*McMillan, Lamar	Little Rock
Thompson, H. F.	Bearden	Clark, A. C.	Little Rock	McPheeters, J. M.	Little Rock
†Thompson, S. A.	Camden	Cohen, Louis A.	Little Rock	McRae, W. M.	Little Rock
Thompson, S. B.	Boston, Mass.	*Compton, J. N.	Little Rock	*Means, Ben D.	Little Rock
PHILLIPS COUNTY		Coon, A. B.	Little Rock	Melson, O. C.	Little Rock
Baker, J. P.	West Helena	*Cook, R. C.	Little Rock	*Morgan, Vern E.	Little Rock
Blackwood, J. O.	USA	*Cooper, Wm. G.	Little Rock	Morgans, Dollie	Little Rock
Butt, J. W.	Helena	*Cope, E. P.	Little Rock	*Murphey, Pat	Little Rock
Connolly, W. B.	Helena	*Cosgrove, K. W.	Little Rock	Newbill, James	Little Rock
Cox, A. E.	Helena	*Crawford, J. B.	Little Rock	*Newman, W. V.	Little Rock
Cox, A. W.	Helena	Crawford, S. R.	Little Rock	Nisbett, J. M.	Texarkana
Ellis, J. B., Sr.	Albuquerque, N. M.	Crawley, Eugene H.	Little Rock	Nixon, Ewing	Little Rock
Ellis, W. A.	Helena	Cull, S. T. W.	Little Rock	Nowlin, W. A.	Roland
Fink, M.	Helena	*Cullen, P. T.	Little Rock	*Oates, Chas. E.	Little Rock
King, J. W.	USA	*Cummins, Bryce	Little Rock	Oates, Gordon P.	Little Rock
Kultgen, Edward	Elaine	Curtis, A. C.	Little Rock	*Parsons, J. E.	Little Rock
		Darby, Wm. J.	Nashville, Tenn.	*Parsons, W. R.	Little Rock

†Patterson, R. Q. Little Rock
 Peters, Leo E. Little Rock
 *Phillips, Bert L. Little Rock
 Phillips, Sam Little Rock
 Phipps, W. E. North Little Rock
 Prickett, M. D. Little Rock
 Raley, B. V. St. Louis, Mo.
 *Raney, T. J. Little Rock
 *Reagan, G. W. Little Rock
 *Reagan, L. D. Little Rock
 *Reaves, B. J., Jr. Little Rock
 †Reed, C. C., Sr. Little Rock
 *Reed, C. C., Jr. Little Rock
 Reed, Enoch F., Jr. Little Rock
 Reed, E. W., Jr. Little Rock
 *Rhinehart, B. A. Little Rock
 *Rhinehart, D. A. Little Rock
 *Rhyne, J. T. Little Rock
 *Richardson, W. R. Little Rock
 *Riegler, N. W., Sr. Little Rock
 *Riegler, N. W., Jr. Little Rock
 Riggins, W. C. New York, N. Y.
 Ritchey, Lloyd F. Little Rock
 Ritchie, E. J. North Little Rock
 *Roberts, J. N. Little Rock
 *Robinson, B. L. Little Rock
 *Rodgers, Clyde D. Little Rock
 *Rosenbaum, Carl A. Little Rock
 Ross, Robert W. Little Rock
 Ross, T. T. Little Rock
 *Rowland, R. E. Little Rock
 Rowen, R. E. Little Rock
 Ruff, Horace E. Little Rock
 *Sadler, W. L. Little Rock
 *Samuel, John Little Rock
 *Sanderlin, J. H. Little Rock
 Sanford, S. M. Searcy
 Savage, H. W. Ft. Worth
 Saxon, R. L. Little Rock
 Scarlett, W. P. Little Rock
 Scarborough, J. I. Little Rock
 Schwander, Howard Little Rock
 *Schwarz, W. J. Little Rock
 Sessoms, W. D. Little Rock
 *Shipp, A. C. Little Rock
 *Shipp, Harvey Little Rock
 *Shuffield, J. F. Little Rock
 *Shukers, C. F. Little Rock
 Sleet, J. A. Little Rock
 Smith, H. H. North Little Rock
 *Smith, James L. Little Rock
 *Smith, John M. Little Rock
 *Smith, John W. Little Rock
 Smith, Joseph F. North Little Rock
 Smith, Jos. S. USA
 Smith, R. T. Little Rock
 Smith, W. M. USA
 *Snodgrass, Wm. A. Little Rock
 *Sparks, A. R. Little Rock
 *Spitzberg, Irving J. Little Rock
 Stathakis, John North Little Rock
 *Stern, Howard S. Little Rock
 Steinkamp, G. R. Little Rock
 Stewart, Bill D. Little Rock
 Stover, A. R. Holbrook, Ariz.
 *Strauss, A. W., Sr. Little Rock
 Strauss, A. W., Jr. Little Rock
 *Summers, J. A. Little Rock
 Switzer, D. M. North Little Rock
 Switzer, D. M., Jr. Little Rock
 Thomas, P. E. Little Rock
 Thomas, P. O. St. Louis, Mo.
 *Thompson, E. I. Little Rock
 Thompson, G. D. Little Rock
 Thompson, R. F. Little Rock
 Turnbow, R. L. Little Rock
 Turner, Roy J. North Little Rock
 Utley, F. E., Jr. Blytheville
 *Wallis, Charles Little Rock
 *Warden, J. R. Little Rock
 Washburn, A. M. Little Rock
 Watkins, John G., Sr. Little Rock
 Watkins, John G., Jr. Little Rock
 Warford, Walton R. USA
 Watson, Asa C., Jr. Little Rock
 Watson, C. F. Little Rock
 *Watson, C. Robert Little Rock
 Wayman, A. K. Little Rock
 *Wayne, J. R. Little Rock
 *Webb, V. T. Little Rock
 *Weny, N. F. Little Rock
 †Whittier, R. W. Little Rock
 *Wickard, C. P. Little Rock
 Wilkes, E. Hays Hope
 Young, R. G. Marion, Ind.

RANDOLPH COUNTY

Baltz, M. A. Pocahontas
 Brown, J. W. Pocahontas
 Finney, C. Maynard
 Hamil, W. E. Pocahontas
 Loftis, J. R. Pocahontas
 Loftis, W. O. Pocahontas
 Ryburn, J. W. Pocahontas

Smith, J. E. Reyno
 Smith, R. O. Biggers-

ST. FRANCIS COUNTY

Bogart, C. N. Forrest City
 Bradley, Ben H. Forrest City
 Burch, W. D. Hughes
 Chaffin, E. J. Hughes
 *Davidson, J. S. Forrest City
 Roy, J. M. Forrest City
 Rush, J. O. Forrest City

SALINE COUNTY

Blakely, M. M. Benton
 Buffington, T. E. Benton
 †Boen, L. R. Prescott
 Jones, C. W. Benton
 Steele, Ashby USA
 Walton, Chas. R. Augusta, Ga.

SEARCY COUNTY

Cotton, J. O. Leslie
 Daniel, S. G. Marshall
 Evans, P. L. Marshall
 Fendley, E. G. Leslie
 Hall, H. J. Clinton
 Leslie, J. O. Marshall
 Moore, Raymond T. USA
 Moore, W. T. Marshall
 Rogers, W. F. St. Joe

SEBASTIAN COUNTY

*Adams, W. F. Fort Smith
 Alford, L. E. Hilo, Hawaii
 Amis, J. W. Fort Smith
 Arnold, W. O. Temple, Tex.
 Benefield, C. E. Fort Smith
 Benefield, J. H. Fort Smith
 Billingsley, C. B. Fort Smith
 *Blair, A. A. Fort Smith
 *Brooksher, W. R. Fort Smith
 *Chamberlain, C. T. Fort Smith
 Clarke, A. S. J. Fort Smith
 Coffman, J. S. Lavaca
 *Crigler, R. E. Fort Smith
 Dickey, A. B. State Sanatorium
 Dorsey, H. C. Fort Smith
 *Eberle, W. G. Fort Smith
 Even, Martin M. Wauwatosa, Wis.
 Foltz, T. P. Beverly Hills, Calif.
 *Foster, M. E. Fort Smith
 *Gates, Stanley M. Fort Smith
 *Goldstein, D. W. Fort Smith
 *Hall, C. W. Greenwood
 Henry, C. A. State Sanatorium
 Henry, Louise Fort Smith
 Henry, L. M. Fort Smith
 Hedrick, Rogers Booneville
 Hoge, A. F. Fort Smith
 Hoge, M. B. Fort Smith
 *Holt, C. S. Fort Smith
 Johnson, Hugh Fort Smith
 Johnson, J. E. Fort Smith
 *Jones, I. F. Fort Smith
 Jones, E. B. Hartford
 Kennedy, C. H. Fort Smith
 Koenig, A. S. Fort Smith
 *Krock, F. H. Fort Smith
 Little, J. E. Fort Smith
 Martin, Art B. Fort Smith
 Melton, June Fort Smith
 McConnell, S. P. Booneville
 *Moulton, E. C. Fort Smith
 Moulton, H. Fort Smith
 Nowlin, R. R. State Sanatorium
 Pride, Ben H. Fort Smith
 *Redman, J. W. Fort Smith
 *Riley, J. D. State Sanatorium
 *Rose, W. F. Fort Smith
 *Scott, M. H. Fort Smith
 Shearer, F. E. Fort Smith
 *Shippey, W. L. Fort Smith
 *Smith, H. H. Fort Smith
 *Southard, J. S. Fort Smith
 *Stevenson, J. E. Fort Smith
 Stocker, G. F. USA
 *Stubbs, S. P. Fort Smith
 Stubbs, S. P., Jr. Fort Smith
 *Thompson, H. B. Fort Smith
 *Thompson, J. K. Fort Smith
 Waddell, Pearl B. Fort Smith
 Wilson, C. L. Fort Smith
 *Woods, G. G. Huntington
 *Woods, W. M. Huntington

SEVIER COUNTY

*Archer, C. A. DeQueen
 Callahan, Leroy DeQueen
 *Dickinson, R. C. Horatio
 Hanchey, C. C. Wilmot
 *Hendricks, J. S. DeQueen
 *Hopkins, R. L. DeQueen
 *Jones, I. G. DeQueen
 Kimball, G. L. DeQueen
 *Kitchens, C. E. DeQueen
 Norwood, M. L. Lockesburg

UNION COUNTY

Atkinson, O. L. Hampton
 Bryant, E. P. USN
 *Cathey, A. D. El Dorado
 Colvin, A. R. Strong
 Cullins, J. G. Knoxville, Iowa
 Cox, Vincent M. Portales, N. M.
 *Fincher, L. G. El Dorado
 Harper, J. W. El Dorado
 Irby, F. L. El Dorado
 Jones, Gus W., Jr. Little Rock
 Jones, Kenneth G. El Dorado
 *Kennedy, C. E. Smackover
 *Levine, David El Dorado
 *Mayfield, H. F. Huttig
 *Mayfield, H. J. El Dorado
 McCall, Daniel Lawson
 McKinney, John S. USA
 McFarland, Louis H. Hampton
 †McGraw, S. J. El Dorado
 Mitchell, J. G. El Dorado
 *Moore, B. L. El Dorado
 *Munn, E. J. El Dorado
 *Murphy, G. D., Sr. El Dorado
 *Murphy, G. D., Jr. El Dorado
 Murphy, H. A. El Dorado
 *Muse, P. H. Junction City
 *Newton, W. L. Smackover
 Patton, Doyle USA
 *Pinson, J. H. Shreveport, La.
 *Riley, W. S. El Dorado
 *Russell, M. V. El Dorado
 Sammons, V. E. Berryville
 Scott, B. F. USN
 Sheppard, J. K. El Dorado
 *Sheppard, J. M. El Dorado
 Slaughter, J. W. El Dorado
 Thibault, Frank El Dorado
 *Wharton, J. B., Sr. El Dorado
 *Wharton, J. B., Jr. El Dorado
 *White, D. E. El Dorado

WASHINGTON COUNTY

Alexander, Gilbert Fayetteville
 *Baggett, Jeff Prairie Grove
 Bunch, W. L. USPHS
 *Butt, W. J. Fayetteville
 *Dorman, J. W. Springdale
 *DeLaney, Jos. P. Fayetteville
 *Ellis, E. F. Fayetteville
 *Fowler, W. A. Fayetteville
 Gilbert, A. A. Fayetteville
 *Hathcock, Alfred Fayetteville
 *Hathcock, Preston Fayetteville
 *Hathcock, P. L. Fayetteville
 Hoge, S. F. Fayetteville
 Huntington, R. H. Fayetteville
 Leming, H. E. Fayetteville
 Lesh, Ruth Ellis Fayetteville
 Lesh, V. O. Fayetteville
 McAllister, Max F. Fayetteville
 *Miller, R. W. Fayetteville
 Mock, W. H. Prairie Grove
 Paddock, C. S. Fayetteville
 *Richardson, Fount Fayetteville
 †Robinson, J. A. Summers
 Shafer, Frank M. Fayetteville
 *Sisco, C. P. Springdale
 *Sisco, Friedman Springdale
 *Weddington, Ralph E. Fayetteville

WHITE COUNTY

Abington, E. H. Beebe
 Adair, T. L. Bald Knob
 Allbright, S. J. Searcy
 Brown, A. R. Searcy
 Burton, Geo. C. Iowa City, Iowa
 Dunklin, A. J. Searcy
 Edwards, Hugh R. Searcy
 Emerson, A. G. Bald Knob
 Felts, W. R. Judsonia
 Felts, W. R., Jr. Washington, D. C.
 Hawkins, M. C., Jr. Searcy
 Huggins, A. H. Searcy
 Huggins, P. T. USA
 Peeler, C. M. Pangburn
 Rector, Jos. L. USA
 Rodgers, P. R. Searcy
 Sloan, D. W. Beebe
 Sloan, J. R. Garner
 Spain, A. L. Letonia
 Wilson, W. H. Griffithsville

WOODRUFF COUNTY

Brewer, E. F. Augusta
 *Dungan, C. E. Augusta
 Evans, R. H. Chatfield
 †Hays, J. F. Augusta
 Magurie, F. C., Sr. Augusta
 Maguire, F. C., Jr. Augusta
 Morris, J. W. McCrory
 Wilkins, W. T. Clarksdale, Miss.
 Williams, W. J. B. Cotton Plant

† Deceased.

* Wife is Auxiliary member.

Control of the State Health Department as a coordinating agency.

Reports of arrested cases of tuberculosis are being furnished the Division of Vocational Rehabilitation, so that the services of this latter group may be made known to people needing this type of guidance.

DIVISION OF INDUSTRIAL HYGIENE

Occupational Diseases Not Reported to the State Health Department

The Workmen's Compensation Law (Act 319) which was passed in 1939 and became effective December 5, 1940, created a Division of Industrial Hygiene in the State Health Department. Although this division was authorized to make a survey of occupational health hazards and 38 specific occupational diseases were listed in the Act with provision for additional occupational diseases being listed as they are created and recognized, no provisions were made for the reporting of occupational diseases to the State Health Department. The efficiency of the Division of Industrial Hygiene would be greatly increased in eliminating occupational disease hazards if legislation were enacted making the physician responsible for reporting occupational diseases to the State Health Department. Many states have already passed such legislation and an effort should be made during the next legislative session to obtain compulsory occupational disease reporting in Arkansas.

Occupational Disease Hazards Covered by State Board of Health Rules and Regulations

The State Board of Health's Rules and Regulations Pertaining to Environmental Sanitation covers not only plant sanitation but lighting, ventilation and hazardous processes. In the section on hazardous processes it is compulsory that the employer provide pre-employment and periodic medical examinations where recognized health hazards exist. The employer is also charged with carrying out an educational program "regarding health hazards connected with their duties and the best preventive measures and methods to protect themselves therefrom." Warning signs, safeguards, and protective devices must also be provided without cost to the employees.

Morbidity and Mortality Reduced by Enforcing Of Rules and Regulations for Compressed Air Workers

In order to control the incident of compressed air illness in the future and specifically among the "sandhogs" or compressed air workers employed on the new Mississippi River bridge at

Memphis, Tennessee, the Arkansas State Board of Health met on May 21, 1946, and adopted the Rules and Regulations for Compressed Air Workers.

Work under pressure got under way on the same day of the board meeting. Members of the Division of Industrial Hygiene were at the bridge site the following morning and the "compressed air rules and regulations" were delivered to management. However, in talking with the works manager it was found that one death had occurred at 5 a. m. that day due to too rapid decompression in the man lock. Arrangements were made to post rates of decompression time in all man locks and in conspicuous places throughout the dressing room. All records of automatic recording gauges were checked daily by a member of the State Health Department.

Past experience has shown that the normal expectancy as to morbidity and mortality due to "bends" on this type of work with the number of employees working on the project that several hundred cases of compressed air illness should have occurred with 17 or 18 fatalities. However, at the present time, the caissons on the Arkansas side of the river have been completed, (half-finished) with only 53 cases of "bends" reported and no other fatalities than the one occurring on the first day of operation.

It is believed that the quick action of the Arkansas State Board of Health in adopting the rules and regulations for compressed air workers and the deligency of the Division of Industrial Hygiene contributed greatly in setting a record for morbidity on this project.

Bureau of Sanitary Engineering

Power is conferred on the Arkansas State Board of Health to make all necessary reasonable rules and regulations of a general nature for the protection of the public health and for the general amelioration of the sanitary and hygienic conditions within the State. (Section 6401, Pope's Digest).

The State Board of Health has general supervision and control over all matters pertaining to the health of citizens of this State. (Section 6400, Pope's Digest).

The responsibility of the State Board of Health in connection with that portion of the state laws and the rules and regulations of the State Board of Health pertaining to sanitation is delegated to the Bureau of Sanitary Engineering, which was created by Act 96 of 1917. (Section 7211, Pope's Digest).

Water and Sewage. Approval of plans for water and sewage works is required by the State

Health Officer under Section 7, Act 64, 1929. (Section 7291, Pope's Digest).

Cemeteries. The State Board of Health's approval is required of all applications for locations or extension of boundaries of cemeteries. (Section 6446, Pope's Digest).

Bedding. Rules are prescribed by the State Board of Health controlling sterilization and renovation of bedding material. (Sections 6458 and 6466, Pope's Digest).

Nuisances. The State Board of Health is required to examine into nuisances or questions affecting the security of life and health in any locality and prepare a report of findings at the request of the Governor (Section 6404, Pope's Digest).

Food and Drugs. Legislations concerning food and drugs are contained in Sections 6008 through 6016, Pope's Digest. Certain sections were amended by Act 190 of 1939. Importation and sale of unwholesome meats, fish, vegetables, etc., and adulteration of butter, candy and vinegar are covered by Section 6018 through 6031, Pope's Digest. Enrichment of flour is required by Act 214 of 1945.

Milk. Municipalities empowered to regulate the sale of milk. (Sections 9972-3, Pope's Digest, amended by Act 131 of 1939).

Dairy Products. Division of Dairy Products, created by Act 114 of 1941, is concerned principally with the four branches of the industry that utilize milk in the manufacture of other dairy products, namely—butter, cheese, evaporated milk and ice cream. The main functions performed consisted of sanitary inspection of the plants; licensing of and collecting fees from the manufacturing plants; maintenance of composition standards; prevention of fraudulent practices; and the general improvement of the manufactured product from the standpoint of health and palatability.

Bottled Drinks. Inspection of bottled drinks required under Section 6454, Pope's Digest.

REPORT OF INDUSTRIAL HEALTH COMMITTEE

A. D. Cathey, Chairman *

This is the second year that I have served on your Industrial Health Committee but because of the suspension of the meetings of the Society, this is the first time I have had the pleasure of reporting to the House of Delegates. We have made our reports, however, to the Council at their regular meetings and I shall endeavor to present, to you the more important activities of our committee for this period.

Soon after my appointment on this committee it became a part of our duty to study the organization, activities and objectives of the Federal State Program of Vocational Rehabilitation. This organization is administered by the Arkansas State Board of Vocational Education. During the course of study of this program your committee became cooperative with the administration in the development of their medical and surgical relief measures which had a short time previously been included in their program. Our report to the Council on April 22, 1945, included a very complete description of the Vocational Rehabilitation organization and was published in the June, 1945, Journal of the Arkansas Medical Society. That report is briefly reported in part as follows:

The cost of the administration of the Vocational rehabilitation program including salaries and travel expenses is borne entirely by Federal funds. One-half of the expense for actual service to the individual is also paid from Federal funds. The other half is to be paid by the state. Service is to be provided only on an economic need basis.

The objective of Vocational Rehabilitation is to provide, or assist in providing, services that are needed to make physically disabled persons suitably employed. Only physically disabled persons who are unemployed or not suitably employed but who can be made employable or more advantageously employed, are eligible for vocational rehabilitation services.

Services are to be provided only after a thorough survey of the individual is made, including medical examination; and may include a review of the school record aptitude and ability tests.

After a proper study is made of the individual, the services provided may consist of one or more of the following:

1. Medical or surgical treatment. (Only if:
a. The disease or disability is a definite voca-

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*As submitted to the 1946 annual session.

tional handicap; b. the disease is not progressive but static; c. the disease must be remediable to a substantial extent in a reasonable length of time (90 days); d. the individual must be medically indigent).

2. Hospitalization (preferably and usually not exceeding 90 days).

3. Prosthetic appliances (braces, artificial legs, arms, etc.).

4. Training (trade schools, colleges, on-the-job employment, etc.).

5. Instructional supplies.

6. Maintenance.

Any of the above listed services are supplied or partially supplied only on an economic need basis.

7. Counsel, guidance and supervision by professional vocational rehabilitation workers from the time a disabled person is accepted until he is placed in suitable employment.

Vocational rehabilitation does not provide any service if there is another agency which will provide the service. It has been stated that vocational rehabilitation is not only a humanitarian program but a good economy program for the state by keeping some of the disabled off of, or removing them from, the welfare status.

Before the medical rehabilitation feature of the program could operate it was necessary that a medical advisory committee be formed. After consulting with the president of the Arkansas Medical Society, the members of this committee were appointed. It consists of eight doctors representing the different medical specialties, one nurse representing the nursing profession, and one member representing the hospitals.

At present the committee is composed of the following members:

Dr. Jos. F. Shuffield, orthopedic surgery.

Dr. S. C. Fulmer, internal medicine.

Dr. W. R. Brooksher, radiology.

Dr. K. W. Cosgrove, ophthalmology.

Dr. George Fletcher, neurology.

Dr. A. D. Cathey, surgery.

Dr. Fay H. Jones, urology.

Dr. A. C. Curtis, public health & tuberculosis.

Mr. John Dudley, hospitals.

Miss Marion Carpenter, nurses.

The duties of this committee are as follows:

1. Advising the State Board of Education through the director and other physical restoration personnel on matters regarding general policies.

2. Setting of standards for hospitals and medical personnel.

3. Adoption of a fee schedule and methods

of payment for services and prosthetic appliances.

4. Methods of medical reporting and record keeping.

5. Assisting and interpreting to the professional personnel and institutions participating in the program, the policies and procedures adopted by the state board.

This committee has met twice with the administrative officers and supervisors of the program. It has organized and studied the program and has transacted some business including the preparation and adoption of a fee schedule.

The last meeting of this committee was held in Little Rock on October 14, 1945. At this meeting it was requested that I include the following statement in this report.

The medical advisory committee for the Federal State Vocational Rehabilitation Program realizes that the program has not as yet been approved by the Arkansas Medical Society. The members of the committee have signified their approval of the program by their acceptance of membership on the committee and are willing to continue their cooperative efforts for the success of the program if such action is not contrary to the wishes of the Arkansas Medical Society.

This concludes my report in regard to the Vocational Rehabilitation program but I wish to report as follows on our Industrial Health Program:

The 55th State Legislature appropriated \$21,480 for the Division of Industrial Hygiene of the State Board of Health for the biennial period beginning July 1, 1945. This appropriation together with available Federal funds has enabled that division to increase its activities and expand its program.

It is important that this work be continued if the state is ever to become highly industrialized, since new industries tend to locate in other states if there is not some health agency to evaluate occupational disease hazards to protect them from fraudulent claims for compensation; also, skilled workers will not work in plants where environmental hazards affecting their health are not controlled. It is impossible in many instances for the Workmen's Compensation Commission to render a fair verdict if there has not been an impartial scientific health study made in the plant involved.

With the above thought and service in mind the State Board of Health has drawn up rules and regulations pertaining to environmental sanitation in manufacturing establishments. These rules not only apply to the usual sanitation meas-

ures, but also to lighting, ventilation and other occupational disease hazards. Where occupational disease hazards exist, it is compulsory that in addition to the pre-employment medical examination, that periodic medical examinations thereafter be provided at no expense to the employee.

The Board of Health reports that their Industrial Hygiene Division has found on their surveys, visits and consultations that a large number of toxic materials were found being used in various processes in industry without the use of proper protection and recommendations were made to prevent disease due to these materials. Other hazards such as silica, lead, organic solvent fumes, etc., were found and eliminated. These investigations are made at the request of management, labor unions, the State Labor Department, Workmen's Compensation Commission, the county medical society committee on industrial hygiene, or on the initiative of the personnel of the Division of Industrial Hygiene.

The Division of Tuberculosis Control made more than 8,000 thirty-five mm. chest X-ray films of industrial employees last year. We are informed that at this time many requests are being received for this service from various industries throughout the state. These surveys are made only on the request or approval of the county medical society of the county in which the industry operates.

ARKANSAS MEDICAL SOCIETY 1946-1947 Officers

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W. R. BROOKSHER, Secretary.....	Fort Smith

Councilors and Councilor Districts

*S. A. THOMPSON, Chairman, Camden

*Deceased.

- First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. P. W. Lutterloh, Jonesboro. Term of office expires 1947.
- Second District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. M. C. Hawkins, Jr., Searcy. Term of office expires 1948.
- Third District—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, Saint Francis and Woodruff counties. J. O. Rush, Forrest City. Term of office expires 1947.
- Fourth District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. M. C. Crandall, Wilmot. Term of office expires 1948.
- Fifth District—Calhoun, Columbia, Dallas, Lafayette,

Ouachita and Union counties. *S. A. Thompson, Camden. Term of office expires 1947.

Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. R. C. Dickinson, Horatio. Term of office expires 1948.

Seventh District—Clark, Garland, Hot Spring, Montgomery and Saline counties. L. G. Martin, Hot Springs National Park. Term of office expires 1947.

Eighth District—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. E. C. Gay, Little Rock. Term of office expires 1948.

Ninth District—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. J. G. Gladden, Harrison. Term of office expires 1947.

Tenth District—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Earle H. Hunt, Clarksville. Term of office expires 1948.

Ex-Officio Councilors

H. KING WADE, Hot Springs, President.
L. T. EVANS, Batesville, President-Elect.
PAUL L. MAHONEY, Little Rock, Treasurer.
W. R. BROOKSHER, Fort Smith, Secretary.

Committees, 1946-1947

(Appointments for one year unless otherwise indicated)

SCIENTIFIC WORK—Chas. H. Lutterloh, Chairman, Hot Springs National Park (1949); Hoyt R. Allen, Little Rock (1948); C. S. Moss, Hot Springs National Park (1947); R. J. Calcote, Little Rock (1949); Jos. B. Wharton, Jr., El Dorado (1949); W. R. Brooksher, Fort Smith (e-officio).

MEDICAL LEGISLATION—Jos. F. Shuffield, Chairman, Little Rock (1949); M. L. Norwood, Lockesburg (1949); W. K. Smith, Hot Springs National Park (1947); M. E. McCaskill, Little Rock (1949); D. L. Owens, Harrison (1949); S. J. Allbright, Searcy (1949); L. T. Evans, Batesville (1949); L. H. McDaniel, Tyrone (1949); W. H. Toland, Nashville (1948).

MEDICAL EDUCATION AND HOSPITALS—Euclid M. Smith, Chairman, Hot Springs National Park (1949); J. K. Walker, Pine Bluff (1947); A. S. Buchanan, Prescott (1948); Gaston A. Hebert, Hot Springs National Park (1949); H. Clay Chenault, Hot Springs National Park (1949); F. A. Corn, Little Rock (1949); O. C. Melson, Little Rock (1949).

HEALTH AND PUBLIC INSTRUCTION—T. T. Ross, Chairman, Little Rock (1947); Byron L. Robinson, Little Rock (1948); Ross Fowler, Harrison (1947); Paul T. Stroud, Jonesboro (1949); R. E. Smallwood, Arkadelphia (1949).

MEDICAL ECONOMICS—H. E. Mobley, Chairman, Morrilton (1948); Roy I. Millard, Russellville (1947); M. L. Norwood, Lockesburg (1948); John Sneed, Conway (1949).

SCIENTIFIC EXHIBIT—H. A. Causey, Chairman, Pine Bluff (1949); Jeff Banks, Little Rock (1948); Paul C. Eschweiler, Little Rock (1949); Ralph E. Crigler, Fort Smith (1947).

NECROLOGY—W. H. Mock, Chairman, Prairie Grove; C. W. Dixon, Gould; Fred Youngblood, Huntsville; E. F. Ellis, Fayetteville; S. W. Douglas, Eudora; W. G. Hodges, Malvern.

CANCER CONTROL—Fred Hames, Chairman; Pine Bluff; R. H. Willett, Jonesboro; D. A. Rhinehart, Little Rock; L. P. Good, Texarkana; S. A. Drennen, Stuttgart; C. A. Archer, Jr., Conway; Fred H. Krock, Fort Smith;

Henry G. Hollenberg, Little Rock; J. G. Gladden, Harrison; D. E. White, El Dorado; Porter Rodgers, Searcy.

MATERNAL AND CHILD WELFARE—I. F. Jones, Chairman, Fort Smith; Don Smith, Hope; E. C. McMullen, Pine Bluff; G. D. Murphy, Jr., El Dorado; Clyde D. Rodgers, Little Rock; John M. Proctor, Hot Springs National Park; M. C. Crandall, Wilmot.

HEART—Chas. T. Chamberlain, Chairman, Fort Smith; G. W. Parson, Texarkana; A. A. Blair, Fort Smith; E. Driver Rowland, Hot Springs National Park; Alan A. Gilbert, Fayetteville.

CONTROL OF SYPHILIS—Louie G. Martin, Chairman, Hot Springs National Park; D. W. Goldstein, Fort Smith; H. J. Mayfield, El Dorado; W. C. Hays, Jr., Marianna; C. E. Kitchens, DeQueen.

POSTGRADUATE STUDY—D. A. Rhinehart, Chairman, Little Rock; E. D. McKelvey, Paragould; F. Walter Carruthers, Little Rock; L. M. Lile, Hope; B. E. Barlow, Dermott; J. W. Reid, Arkadelphia; C. A. Archer, DeQueen; H. Fay H. Jones, Little Rock; W. C. Langston, Little Rock.

AUXILIARY—L. K. Hundley, Chairman, Pine Bluff; A. C. Shipp, Little Rock; H. Fay H. Jones, Little Rock; H. T. Smith, McGehee; G. C. Coffey, Hot Springs National Park; J. F. Jackson, Newport; D. C. Lee, Hot Springs National Park.

STUDY OF MIDWIFERY—J. P. Price, Chairman, Monticello; W. H. Martin, Holly Grove; T. H. Jones, Waldo.

LIAISON WITH THE ARKANSAS TUBERCULOSIS ASSOCIATION—A. C. Shipp, Chairman, Little Rock; J. D. Riley, State Sanatorium; J. F. Williams, Texarkana; S. C. Fulmer, Little Rock; R. C. Dickinson, Horatio; R. M. Kelly, Lonoke; C. K. Townsend, Arkadelphia.

INDUSTRIAL HEALTH—A. D. Cathey, Chairman, El Dorado; J. B. Jameson, Camden; W. V. Newman, Little Rock; J. Harry Hayes, Little Rock; W. F. Barrier, Malvern; H. E. Murry, Texarkana.

MENTAL HYGIENE—A. C. Kolb, Chairman, Little Rock; Geo. B. Fletcher, Hot Springs National Park; Pat Murphey, Little Rock; Elizabeth Fletcher, Little Rock; R. F. Darnall, Little Rock; Robert Watson, Little Rock; Louis A. Cohen, Little Rock.

ADVISORY TO STATE INSTITUTIONS—R. B. Robins, Chairman, Camden; J. B. Jameson, Camden; L. J. Harell, Prescott; Jos. F. Shuffield, Little Rock; M. C. Hawkins, Jr., Searcy.

MEDICAL SERVICE AND PUBLIC RELATIONS—C. R. Henry, Chairman, Little Rock; H. A. Higgins, Little Rock; A. G. Cazort, Little Rock; Ellery C. Gay, Little Rock; S. A. Thompson, Camden; B. L. Moore, El Dorado; P. W. Lutterloh, Jonesboro.

MILITARY AFFAIRS—Jos. H. Sanderlin, Chairman, Little Rock; Frank M. Burton, Hot Springs National Park; A. H. Hathcock, Fayetteville; G. D. Murphy, Jr., El Dorado; Foster Jarrell, Hot Springs National Park; W. A. Butts, Helena; W. G. Eberle, Fort Smith; L. J. Kosminsky, Texarkana.

CONSTITUTION AND BY-LAWS OF THE ARKANSAS MEDICAL SOCIETY 1946*

CONSTITUTION

Article I.—Name of the Society

The name and title of this organization shall be the Arkansas Medical Society.

Article II.—Purposes of the Society

The purposes of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of Arkansas and to unite with similar societies of other States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

Article III.—Component Societies

Component Societies shall consist of those county medical societies which hold charters from this Society.

Article IV.—Composition of the Society

Section 1. This Society shall consist of members, delegates and guests.

Sec. 2. Active Membership. The active membership of this Society shall comprise all the active members of its component societies. Only such person is eligible for active membership in a component society as (1) possesses the degree of Doctor of Medicine, issued by a medical school, which at the time such degree was conferred, was approved by the Council on Medical Education and Hospitals of the American Medical Association, and (2) holds also an unrevoked license to practice medicine and surgery issued by the board of medical examiners which consists of members recommended by this Society. The eligibility requirements set forth in the preceding sentences are not to apply, however, to members in good standing in any component society at the time of the adoption of this section. (Adopted, House of Delegates, 1937 annual session.)

Sec. 3. Delegates. Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Society.

Sec. 4. Guests. Any distinguished physician not a resident of this State, who is a member of his own State Society, may become a guest during any Annual Session on invitation of the officers of this Society, and shall be accorded the privilege of participating in all of the scientific work for that Session.

Article V.—House of Delegates

The House of Delegates shall be the legislative body of

A Merry Christmas

To All

*As amended at the 70th Annual Session, 1946.

the Society, and shall consist of: (1) Delegates elected by the component county societies; (2) The Councilors; and (3) ex-officio, the President, Secretary and Past-Presidents of the Society; provided, however, that the Past-Presidents shall have the power of voting on all subjects except the election of officers.

Article VI.—Council

The Council shall consist of the Councilors, and the President, President-Elect, Secretary and Treasurer. Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates. Six Councilors shall constitute a quorum.

Article VII.—Sections and District Societies

The House of Delegates may provide for a division of the scientific work of the Society into appropriate sections, and for the organizations of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

Article VIII.—Sessions and Meetings

Section 1. The Society shall hold an Annual Session, during which there shall be held daily general meetings, which shall be open to all registered members and guests.

Sec. 2. The place for holding each annual session shall be decided by the House of Delegates. After conferring with the President and Secretary of the Society, the time for holding each annual meeting shall be decided by the Committee on Arrangements of the component society of the county in which the meeting is to be held.

Article IX.—Officers

Section 1. The officers of this Society shall be a President, President-Elect, three Vice-Presidents, a Secretary, a Treasurer and ten Councilors.

Sec. 2. The President-Elect and Vice-Presidents, the Secretary and the Treasurer shall be elected annually, each to serve a one-year term. On the expiration of his term as President-Elect, that person shall automatically succeed to the Presidency and shall serve as President for the ensuing year. Each year five Councilors shall be elected, each to serve a two-year term. All officers shall serve until their successors are installed.

Article X.—Reciprocity of Membership With Other State Societies

In order to broaden professional fellowship this Society is ready to arrange with other State Medical Societies for an interchange of certificates of membership, so that members moving from one state to another may avoid the formality of re-election.

Article XI.—Funds and Expenses

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates, but shall not exceed the sum of \$5.00 per capita per annum, except on four-fifths vote of the Delegates present. Funds may also be raised by voluntary contributions, from the Society's publications and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon.

Article XII.—Referendum

Section 1. A General Meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates and when so ordered the House of Delegates shall submit such questions to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2. The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

Article XIII.—The Seal

The Society shall have a common seal, with power to break, change or renew the same at pleasure.

Article XIV.—Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published twice during the year in a bulletin or Journal of this Society, or sent officially to each component society at least two months before the meeting at which final action is to be taken.

BY-LAWS

Chapter I.—Membership

Section 1. The name of a physician on the properly certified roster of members of a component society which has paid its annual assessment, shall be prima facie evidence of membership in this Society.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Society, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member, each member chosen as a delegate, and each guest in attendance at an Annual Session of the Society shall register in such manner as may be provided by the Secretary, giving his name, address, and the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

Sec. 4. An active member who shall have attained his eightieth year and shall have been a member of his county medical society in Arkansas or elsewhere in the United States continuously since beginning the practice of medicine, or who for fifty years shall have been continuously a member of his county medical society in Arkansas or elsewhere in the United States, shall, upon establishing the above facts to the satisfaction of his county medical society, and upon the recommendation of such society, be granted the status of a life member. Such member shall enjoy full membership privileges and

shall be exempt from the payment of further dues or assessments. An active member in good standing in his county society may, upon the recommendation of such society, be granted affiliate membership with full voting and other privileges where one or more of the following conditions exist: retirement from active practice, physical or other disability of a character preventing the practice of medicine, a serious and prolonged illness, or financial reverses.

Affiliate membership shall be on an annual basis only and a member must be recommended each year for such special status by the secretary and president of his county medical society following a review and reassessment of his particular situation. An affiliate member shall enjoy full membership privileges and shall be exempt from the payment of dues and assessments during the year in which he is granted such status, and a certificate of membership shall be issued to him for such year. (Adopted 1946 Annual Session.)

Chapter II.—Annual and Special Sessions of the Society

Section 1. The Society shall hold an Annual Session at such time and place as has been fixed by the House of Delegates at the preceding Annual Session.

Sec. 2. Special Meetings of either the Society or of the House of Delegates shall be called by the President on petition of twenty delegates or fifty members.

Chapter III.—General Meetings

Section 1. All registered members may attend and participate in the proceedings and discussions of the General Meetings and of the Sections. The General Meetings shall be presided over by the President or by one of the Vice-Presidents, and before them shall be heard the address of the President and the orations, and such scientific papers and discussions as may be arranged for in the program.

Sec. 2. The General Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public.

Chapter IV.—House of Delegates

Section 1. The House of Delegates shall meet on the first day of the Annual Session. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the General Meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every twenty-five members, and one for each major fraction thereof, provided that its annual report and assessments are in the hands of the Secretary by March 1st of each year. Each component society, however, regardless of its number of members, which has complied with this Section, is entitled to one delegate.

Sec. 3. A majority of the Delegates registered shall constitute a quorum.

Sec. 4. It shall, through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Society, and shall constantly study and strive to make each Annual Session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interests of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all

proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county of the State who is reputable and eligible has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

Sec. 8. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body.

Sec. 9. It shall divide the State into Councilor Districts, specifying what counties each district shall include, and, when the best interest of the Society and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies shall be members in such district society.

Sec. 10. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates. Such committees shall report to the House of Delegates, and may be present and participate in the debate on their reports.

Sec. 11. It shall approve all memorials and resolutions issued in the name of the Society before they shall become effective.

Sec. 12. In case of vacancy in the office of delegate, the House of Delegates shall have the authority to seat any member of that county society in attendance at said meeting as delegate, with full right to perform all the duties of that office.

Chapter V.—Election of Officers

Section 1. Immediately after adjournment of the first meeting of the House of Delegates at each Annual Session, the delegates from the component societies of each councilor district shall meet, the councilor acting as chairman, and select one delegate from each district to form a Committee on Nominations. This Committee shall consist of ten delegates, one from each councilor district. It shall meet and organize by selecting a chairman and secretary. It shall be the duty of this committee to consult with the members of the Society and to hold one or more meetings at which the best interest of the Society and of the profession of the State for the ensuing year shall be carefully considered. The committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the names of two or more members for the office of President-Elect and of one member for each of the other offices to be filled at that Annual Session. No two candidates for President-Elect shall be named from the same county.

Sec. 2. All elections shall be by ballot, except where there is only one candidate, when election may be made by acclamation, and a majority of the votes cast shall be necessary to elect.

Sec. 3. The report of the Nominating Committee shall

be the first order of business of the House of Delegates on the afternoon of the last day of the Annual Session.

Sec. 4. The election of officers shall be the second order of business of the House of Delegates on the afternoon of the last day of the Annual Session.

Sec. 5. Any person known to have solicited votes for or sought any office within the gift of this Society shall be ineligible for any office for two years. No member shall be eligible to any office of this Society who is not in attendance at the meeting at which the election is held.

Chapter VI.—Duties of Officers

Section 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged, and shall perform such duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

Sec. 2. The President-Elect shall be a member of the Council and the House of Delegates. It shall be his duty to assist the President in visiting the component county and the district societies, and to familiarize himself with, and prepare himself for, the performance of his duties when he shall have succeeded to the presidency of the Society.

Sec. 3. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Council shall select one of the Vice-Presidents to succeed him.

Sec. 4. The Treasurer shall give bond in the sum of \$6,000. He shall demand and receive all funds due the Society, together with bequests and donations. He shall pay money out of the Treasury only on a written order of the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands.

Sec. 5. The Secretary shall give bond in the sum of \$3,000; he shall attend the general meetings of the Society and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record books and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a register of all the legal practitioners in the State by counties, noting on each, his status in relation to his county society, and, on request, shall transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies and in the extension of the power and usefulness of this Society. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates, and shall make an annual report to the House of Delegates. He

shall supply all component societies with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment, collect the same and turn it over to the Treasurer, taking his receipt therefor. Acting with the Committee on Scientific Work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Council.

Sec. 6. The Council shall have authority to accept or reject all bonds.

Chapter VII.—Council

Section 1. The Council shall meet on the first day of the Annual Session and daily during the session and at such other times as necessity may require, subject to the call of the chairman or on a petition of three Councilors. It shall meet on the last day of the Annual Session of the Society to organize and outline the work for the ensuing year. It shall select a chairman and a secretary, who, in the absence of the Secretary of the Society, shall keep a record of its proceedings. It shall through its chairman, make an annual written report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peace-maker and censor for his district. He shall visit the counties in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual written report of his work, and of the condition of the profession of each county in his district at the Annual Session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed on a properly itemized statement; but this shall not be construed to include his expenses in attending the Annual Session of the Society.

Sec. 3. The Council shall be the executive body of the House of Delegates and between Annual Sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component societies, on which an appeal is taken from the decision of an individual Councilor.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society. It shall annually audit the accounts of the Treasurer and Secretary and other agents of this Society and present a statement of the same in its annual report

to the House of Delegates, which report shall also specify the character and cost of all the publications of the Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary or of the Treasurer, the Council shall fill the vacancy until the next annual election.

Chapter VIII.—Committees

Section 1. The standing committees of this Society shall be as follows:

1. A Committee on Scientific Work.
2. A Committee on Medical Legislation.
3. A Committee on Health and Public Instruction.
4. A Committee on Medical Education and Hospitals.
5. A Committee on Public Relations.
6. A Committee on Medical Economics.
7. A Committee on Scientific Exhibits.
8. A Committee on Arrangements.

Unless otherwise provided, these committees shall be appointed by the President. Each committee shall consist of at least three members. A greater number may be appointed whenever circumstances require a larger committee. As far as practicable, appointments shall be made so that the term of office of a third of the members of each committee shall expire each year. The President and Secretary shall be ex-officio members of all committees.

Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary shall be one. Subject to the instructions of the House of Delegates, this committee shall determine the character and scope of the scientific proceedings for each Annual Session. It shall prepare a scientific program for each Annual Session, determining the order in which papers and discussions shall be presented.

Sec. 3. The Committee on Medical Legislation shall consist of seven members. It shall represent the Society in all legislative practice. It shall keep in touch with professional and public opinion and maintain active relations with the Bureau of Legal Medicine and Legislation of the American Medical Association. It shall, at all times, endeavor to shape and guide legislation with a view to securing the best results for the whole people. It shall strive to organize professional influence so as to promote the general good of the community in local, state, and national affairs and elections. During sessions of the General Assembly, it shall keep itself informed as to the bills that are introduced, and shall inform the members of the Society through its Journal or by special bulletins, to the end that legislation inimical to the medical profession and the public shall be defeated, and legislation fostering the interests of public health and medical practice shall be enacted into law.

Sec. 4. The Committee on Health and Public Instruction shall represent the Society in those affairs having for their object the improvement in public and personal health, the prevention of epidemics, and the instruction of the people. It shall maintain close relations with the Board of Health, the State Health Officer, and the various health officials, assisting in the adoption of public health programs, the enforcement of sanitary laws, and the promulgation of other health activities of interest to the members of the Society. As occasion demands or when thought advisable, it shall supervise the preparation of articles of timely interest for publication in the news-

papers or for broadcasting over the radio for the instruction of the public.

Sec. 5. The Committee on Medical Education and Hospitals shall serve this State for the Committee on Medical Education and Hospitals of the American Medical Association, and shall have referred to it all questions pertaining to hospitals and medical education. It shall maintain close relations with the officials and faculty of the University of Arkansas School of Medicine, rendering at all times such assistance as it can in maintaining that institution as a Class A Medical School.

Sec. 6. The Committee on Public Relations shall have referred to it all questions wherein the medical profession as represented by the Society is called upon for advice, for participation in private or public affairs and projects not coming within the duties outlined for the other committees. It shall be the publicity committee of the Society and shall have charge of all publicity issued in the name of the Society.

Sec. 7. The Committee on Medical Economics shall serve the State for the Council on Medical Economics of the American Medical Association. It shall investigate all matters affecting the economic status of physicians and shall report annually to the House of Delegates, such recommendations as may, in its judgment, seem proper.

Sec. 8. The Committee on Scientific Exhibit shall solicit and collect material from institutions and individual physicians of the State that is of scientific interest. This it shall arrange and exhibit at each Annual Session. It should particularly strive to obtain material that will more fully illustrate the papers presented in the general meetings of the Society.

Sec. 9. The Committee on Arrangements shall be appointed by the component society of the county in which the Annual Session is to be held. With the President and Secretary it shall select the time of the Annual Session. It shall provide suitable accommodations for the meeting places of the Society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

Chapter IX.—County Societies

Section 1. All county societies now in affiliation with this Society or those which may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, on application, receive a charter from and become a component part of this Society.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charters shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Society. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Council for the District if

necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals of this Society and to the American Medical Association, every reputable physician who possesses the eligibility qualifications for membership required by Article IV, Section 2, of the Constitution of this Society, and who does not practice or claim to practice nor lend his support to any exclusive system of medicine, shall be eligible to membership. No physician or surgeon who solicits patients or business for himself, or for an association or other organization of which he is a member, or by which he is employed, or in which he is interested, shall be eligible for membership in this Society, and no physician who works for, is employed by, or is interested in, any association or organization which solicits patients, members or physicians, shall be eligible for membership in this Society. Any member of the Society who shall hereafter violate any of the provisions hereof shall be expelled from the Society. Before a charter is issued to any county society, full and ample notice shall be given to every such physician in the county to become a member.

Sec. 6. Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in censoring, suspending, or expelling him, shall have the right to appeal to the Council, and its decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination. That the Council may be aided in rendering just decisions, it is necessary that the By-Laws of each component society provide in detail the routine to be followed in preferring charges and trying any member accused of and tried for any kind of unprofessional conduct.

Sec. 7. In hearing appeals the Council may admit oral or written evidence as in its judgment will best and most fairly present the facts; but in case of every appeal, both as a Board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the Secretary of his society, without cost, for transmission to the Secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified and in the State Society to the end of the period for which his dues have been paid.

Sec. 9. A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole,

to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the Annual Session of this Society, each county shall elect a delegate or delegates to represent it in the House of Delegates of this Society, in the proportion of one delegate to each twenty-five members, and one for each major fraction thereof, and the Secretary of the county society shall send a list of such delegates to the Secretary of this Society at least ten days before the Annual Session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall endeavor to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary of this Society on January 1, and not later than March 1 of each year.

Sec. 14. Any county society which fails to pay its assessment, or make the report required, on or before March 1, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society or of the House of Delegates until such requirements have been met.

Chapter X.—Miscellaneous

Section 1. No address or paper before the Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak longer than five minutes nor more than once on any subject, except by unanimous consent.

Sec. 2. All papers read before the Society or any of the Sections shall become its property. Each paper shall be deposited with the Secretary when read.

Sec. 3. The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 4. The Principles of Medical Ethics promulgated by the American Medical Association shall govern the conduct of members in their relation to each other and to the public.

Chapter XI.—Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any Annual Session, provided that each amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published twice during the year in a bulletin or Journal of this Society, or sent officially to each component society at least two months before the meeting at which final action is to be taken.

NARCOTIC DRUGS

Act No. 344, 1937, closely parallels the national narcotic drug Act, now making it a state offense, as well as a Federal offense, to prescribe narcotics otherwise than in "good faith," or to possess or transport narcotics, except that secured by the regular method of dispensing. It is called the uniform narcotic drug Act. The bill defines a "physician" as being a "person authorized by law to practice medicine in this state and any other person authorized by law to treat sick and injured human beings and to use narcotics in connection with such treatment."

"'Hospital' means an institution for the care and treatment of the sick and injured, approved by the state health officer as proper to be entrusted with the custody of narcotic drugs and the professional use of narcotics under the direction of a physician, dentist or veterinarian."

"'Sale' includes barter, exchange or gift, or offer therefor, and such transaction made by any person, whether as principal, proprietor, agent, servant or employee."

"'Official written order' means an order written on a form provided for that purpose by the U. S. Commissioner of Narcotics under any laws of the United States making provision therefor, if such order forms are authorized and required by Federal law, and if no such order form is provided, then on an official form provided for that purpose by the state health officer."

Section 5 provides that a wholesaler may sell to a doctor.

(4) Provides that possession by a doctor is permissible if in the regular course of business, occupation or profession.

Section 6 provides that a druggist may, in good faith, sell and dispense narcotics to any person upon a written prescription of a doctor, dated and signed and bearing the full name and address of the patient, and the full name, address and Federal registry number of the person prescribing.

Section 7 provides that a doctor may in good faith and in the course of his professional practice prescribe, administer and dispense narcotics, or may cause the same to be administered by a nurse or interne.

Section 8 provides that the law shall not apply to prescribing, administering, dispensing or selling at retail any medical preparation that con-

tains in one fluid ounce, or in one avoirdupois ounce:

Not more than 2 grains opium;

Not more than $\frac{1}{4}$ grain morphine;

Not more than 1 grain codeine;

Not more than $\frac{1}{8}$ grain heroin,

or to the prescribing, administering, dispensing or selling at retail of liniments and ointments for external use that contain narcotics in such combinations as prevent their being readily extracted.

The form of records shall be prescribed by the state health officer.

The exemptions authorized shall be subject to the following conditions:

(a) No person shall prescribe, administer, dispense or sell under the exemptions of this section, to any one person, or for the use of any one person or animal, any preparation included within this section, when he knows, or can by reasonable diligence ascertain, that such prescribing, administering, dispensing or selling will provide the person to whom or for whose use, or the owner of the animal for the use of which such preparation is prescribed, administered, dispensed or sold, within any 48 consecutive hours, with more than 4 grains of opium, or more than one-half grain of morphine or of any of its salts, or more than 2 grains of codeine or any of its salts, or more than one-fourth of a grain of heroin or any of its salts or will provide such person or the owner of such animal, within 48 consecutive hours, with more than one preparation exempted by this section from the operation of this Act.

(b) The medicinal preparation, or the liniment, ointment or other preparation susceptible of external use only, prescribed, administered, dispensed or sold, shall contain, in addition to the narcotic drug in it, some drug or drugs conferring upon it medicinal qualities other than those possessed by the narcotic drug alone. Such preparation shall be prescribed, administered, dispensed and sold in good faith as a medicine, and not for the purpose of evading the provisions of this Act.

Section 9. Record to be Kept. Physicians, Dentists, Veterinarians, and Other Authorized Persons. Every physician, dentist, veterinarian or other person who is authorized to administer or professionally use narcotic drugs, shall keep a record of such drugs received by him, and a record of all such drugs administered, dispensed

or professionally used by him otherwise than by prescription. It shall, however, be deemed a sufficient compliance with this sub-section if any such person using small quantities of solutions or other preparations of such drugs for local application, shall keep a record of the quantity, character and potency of such solutions or other preparations purchased or made up by him, and of the dates when purchased or made up, without keeping record of the amount of such solution or other preparation applied by him to individual patients.

Provided: That no record need be kept of narcotics administered, dispensed, or professionally used in the treatment of any one patient, when the amount administered, dispensed, or professionally used for that purpose does not exceed in any 48 consecutive hours (a) 4 grains of opium, or (b) $\frac{1}{2}$ grain of morphine or any of its salts, or (c) 2 grains of codeine or any of its salts, or (d) $\frac{1}{4}$ grain of heroin or any of its salts, or (e) a quantity of any other narcotic or any combination of narcotics that does not exceed in pharmacologic potency any one of the drugs named above in the quantity stated.

Section 19. Enforcement. It is hereby made the duty of the state health officer, his officers, agents, inspectors and representatives, and of all peace officers within the state, and of all county attorneys, to enforce all provisions of this Act, except those specifically delegated, and to cooperate with all agencies charged with the enforcement of the laws of the United States, this state, and of all other states, relating to narcotics.

Section 20. Penalties. Conviction shall be punished by a fine (for first offense) not exceeding \$100, or by imprisonment not exceeding six months, and for any subsequent offense by fine not exceeding \$500, or by imprisonment not exceeding one year, or by both fine and imprisonment.

The question of whether a physician may lawfully prescribe morphine to an addict in sufficient quantities merely to keep him comfortable was definitely settled by the Supreme Court of the United States in the case of *Linder v. U. S.*, 268 U. S. 5, where a physician was indicted for having knowingly sold to a person one tablet of morphine without her written order on the form issued by the Commissioner of Internal Revenue. The indictment charged that

the patient did not require the administration of narcotics by reason of any disease other than addiction. The Court said: "Addicts are diseased and proper subjects for such treatment, and we cannot properly conclude that a physician acted improperly or unwisely or for other than medical purposes, solely because he has dispensed to one and in ordinary good faith, narcotics for relief of conditions incident to addiction."

Dispensing or prescribing for addicts must be done with great caution.

By the provisions of Act 324 of 1941 cannabis is defined and included in the list of controlled narcotic drugs. In addition to the previous authorized sale of narcotic drugs, physicians or surgeons licensed in some other state, territory or the District of Columbia, retired medical officer of the Army, Navy or Public Health Service employed on ships or aircraft may prescribe narcotics for medical needs of passengers and they are given the legal right of possession.

"Except as otherwise in this act specifically provided, this Act shall not apply to the following cases: Administering, dispensing, or selling at retail of any medicinal preparations that contain in one fluid ounce, or if a solid or semisolid preparation, in one avoirdupois ounce, not more than one grain of codeine or of any of its salts'

"The exemption authorized by this section shall be subject to the following conditions: (1) that the medicinal preparation administered, dispensed, or sold, shall contain, in addition to the narcotic drug in it, some drug or drugs conferring upon it medicinal qualities other than those possessed by the narcotic drug alone; and (2) that such preparation shall be administered, dispensed, and sold in good faith as a medicine, and not for the purpose of evading the provisions of this Act. Nothing in this section shall be construed to limit the quantity of codeine or of any of its salts that may be prescribed, administered, dispensed, or sold, to any person or for the use of any person or animal, when it is prescribed, administered, dispensed or sold, in compliance with the general provisions of this Act. Nothing in this Section shall be construed to prevent possession and sale of paragonic by registered drug stores when record of such sale is kept in the manner and form as now provided by law."

RULES AND REGULATIONS GOVERNING ACT 277 OF 1945, ESTABLISHING STATE CANCER COMMISSION

Section 1. Persons afflicted with cancer who are without means of providing for themselves adequate treatment when so certified by a licensed physician may be eligible for state aid as provided in Act 277. Application for such aid may be made to the State Cancer Commission and shall require a certificate from some licensed physician showing diagnosis of cancer or suspicion of cancer and need for hospitalization or domiciliary care and treatment. Such certificate shall show the physical condition of the applicant and shall indicate any associated diseases.

Section 2. The State Cancer Commission upon finding that the applicant is eligible for benefits will authorize hospitalization and/or domiciliary care for such applicant. Hospitalization will be authorized for a period not to exceed 21 days in any eligible hospital in the State of Arkansas selected by the patient and physician having facilities available for diagnosis and treatment of such applicant. Domiciliary care will be authorized for a period not to exceed 30 days and may be furnished by any person or firm approved by the physician attending the individual patient.

Section 3. Any applicant who is certified as being eligible for benefits and who is admitted to an eligible hospital shall be given care for a period not exceeding 21 days; said hospital to be compensated therefor as hereinafter provided. In the event 21 days is insufficient the hospital in which applicant is being treated may apply to the State Cancer Commission for authority to continue such hospitalization.

Section 4. Before any hospital may be compensated for the care of the indigent cancer patient, it must first be designated as an eligible hospital by the State Department of Public Welfare; such eligibility being based on standards as are approved by modern medical science.

Section 5. No hospital providing for the care and maintenance of patients under the provision of Act 277 shall charge more than \$4.50 per day for such care and maintenance, such sum shall include all routine care, food and other services and supplies necessary for proper hospitalization.

Section 6. Any applicant who is certified as

being eligible for benefits and who is in need of domiciliary care while receiving treatment as an out-patient may receive such care for a period not to exceed 30 days. No person or firm furnishing such care shall charge more than \$2.50 per day for domiciliary care. In the event that 30 days is insufficient for the completion of treatments or observation application may be made by the attending physician for an extension of the time. The attending physician shall be required to approve the person or firm furnishing such care for his individual patient.

Section 7. The eligible hospital shall receive compensation for care and maintenance of patients who receive benefits under Act 277 by transmitting to the Secretary of the State Cancer Commission one copy of the certificate signed by the physician designating the patient as eligible for benefits under Act 277 together with a verified statement (in triplicate) of the total charges for hospitalization rendered to such patient. The Secretary of the State Cancer Commission shall in such case issue to the hospital a voucher for the amount that is due. The same procedure shall be followed by persons or firms furnishing domiciliary care.

Section 8. In each case treated a biopsy or section of the tumor shall be sent to the Department of Pathology, University Hospital, Little Rock, Arkansas.

Arkansas State Cancer Commission

Hon. Ben Laney, Chairman, Little Rock.

Dr. Carl A. Rosenbaum, Secretary, Little Rock.

Dr. Fred Hames, Pine Bluff.

Dr. W. R. Brooksher, Fort Smith.

Mrs. R. C. Dickinson, Horatio.

SALE OF BARBITURIC ACID COM- POUNDS PROHIBITED

Barbituric acid compounds, under various trade names, are more or less habit-forming and provide an all-too-easy method of becoming a narcotic addict. Patients who have had their discomfort allayed by the legitimate and proper administration of this drug sometimes thereafter attempt to prescribe it for themselves, or their friends, and many near tragedies and some fatal effects have followed as a result.

Act 113, 1935, prohibits the sale of barbituric acid compounds, except on a prescription of a physician, or its sale by a physician, making the violation of this law a criminal offense.

THE JOURNAL

OF THE
ARKANSAS MEDICAL SOCIETY

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*Deceased.

EDITORIAL

ARKANSAS LAWS OF INTEREST TO PHYSICIANS

This issue of The Journal is concerned with presentation of Arkansas statutes and the regulations of various official bodies which affect the practicing physician and the practice of medicine in the state. The Society previously published a manual on this subject several years ago which is now out-dated and effort is now being made in The Journal to provide a reference source of material in accordance with laws and regulations presently in force.

Members are urged to keep this issue of The Journal available for reference as occasion demands and it does not seem inappropriate to suggest careful reading of the material herein published.

POSTWAR QUESTIONNAIRE

The attention of returned medical officers is directed to the reproduction of the questionnaire developed by the Committee on National Emergency Medical Service of the American Medical Association appearing in this issue and the explanatory discussion which follows:

Edward L. Bortz, M. D., of Philadelphia, chairman of the Committee on National Emergency Medical Service of the American Medical Association, has announced the mailing soon of a comprehensive questionnaire to more than 45,000 discharged medical officers of World War II.

"Since the results of the questionnaire will serve as a useful guide in preparing for any new national emergency," Dr. Bortz said, "the committee urges all the returning medical officers to express frankly, fully and completely their reaction to military service."

The questionnaires will be mailed from A. M. A. headquarters in Chicago during November and should be returned within a month. The results will be tabulated and analyzed in detail.

The following letter, signed by George F. Lull, M. D., secretary and general manager of the A. M. A., in behalf of the committee will accompany each questionnaire:

"The House of Delegates of the American Medical Association in December, 1945, created a committee to study the over-all needs and utilization of medical skills and resources of the nation in the case of an emergency. The House passed the following resolution:

" . . . that the Association undertake a critical study of the duties of medical officers during the war just passed, with special reference to (1) opportunities for study, research and actual treatment of the sick; (2) rotation of medical assignments; (3) quasi-medical duties for which technicians and specially trained enlisted personnel might replace physicians. . . .

" . . . and appoint a special committee to study by means of questionnaires sent to medical officers on release from active duty. . . ."

"The Board of Trustees has appointed a National Emergency Medical Service Committee and instructed it to undertake the study and prepare plans as described in the action of the House of Delegates.

"A pilot questionnaire was sent to 1,000 former medical officers, selected at random. The response was surprisingly large. A total of 470, or 47 per cent, of those questionnaires were carefully filled out and returned. Certain technical defects in the pilot questionnaire form were noted and the revised questionnaire enclosed herewith was developed. It is being sent to all former medical officers, including those who received the pilot questionnaire.

"The Committee is a fact finding board and

hopes to make recommendations that will lead to better utilization of medical skills and resources in a futile emergency. Your help in this will be appreciated. A stamped envelope is enclosed for your early return of the completed questionnaire. You are cordially invited to write a covering letter if the questionnaire has omitted points which you deem significant."

Dr. Bortz said that the committee feels that its final analysis and recommendations should cover not only the military services, but also other governmental agencies, industry, medical education, research and civilian medical care.

The Committee, in so far as possible has provided check lists in this questionnaire. This makes it possible for the doctor merely to check the proper item and avoid taking the time to write out his answers.

Some of the questions will require written explanations, however. For example: What important features of training were not sufficiently stressed? What in your opinion should be included in an ideal training program? If there was waste of personnel in your unit, please state how personnel could have been used effectively. What suggestions have you about methods of assignment of medical officers in the event of another military emergency?

In discussing the questionnaire, Dr. Bortz stressed the desirability of deliberation on the part of every physician in answering the questions. "The objective sought," he said, "can be best attained by careful consideration of each and every question."

In addition to Dr. Bortz, the National Emergency Medical Service Committee is composed of Harold S. Diehl, M. D., University of Minnesota, Minneapolis; Perrin H. Long, M. D., Baltimore; Harold C. Lueth, M. D., the University of Nebraska, Omaha; O. O. Miller, M. D., Louisville, Ky.; James C. Sargent, M. D., Milwaukee, and V. C. Tisdal, M. D., Elk City, Oklahoma.

RANDOM THOUGHTS OF THE SECRETARY

October 31st. Again in session in the Governor's office over the long-range cancer control program of the state, guests again of Rosenbaum for lunch at the Lafayette, and homeward with Krock to round out the day working a bit later than usual to catch up with the duties.

November 7th. Endeavoring to present some of our ideas on the Murray-Wagner-Dingell bill hearings to the Benton County Medical Society at Rogers tonight, renewing acquaintance with Weddington, unheard of for five

years, and permitted to eat a meal with Jack Pickens without him preempting our plate as was the occasion when we last sat at a dinner table with him at this meeting in 1942, and homeward bound with Amis listening to Earle Hunt's favorite radio program, "Moon River."

November 8th. All but the Solid South has "had enough."

November 8th. Visited by Nick Carter, a fellow grid-iron associate of days gone by at Ouachita, who brings news of many an Arkadelphia friend, and tonight to watch the Ouachitians and the Arkansas Bees ruggedly fight it out to a decision which came on the last play of the game.

November 12th. With utter disregard of the amenities of parliamentary usage, the county society attends to its business tonight, but with startling reversal of form, adheres with to protocol with severe rigidity in the presentation of the speaker of the evening, Crigler, who discusses malignancy of the colon and rectum in masterly fashion.

FELLOWSHIPS IN THE STUDY OF TUBERCULOSIS

In 1939 Act 322 authorizes the Directors and Board of Trustees of the Arkansas Tuberculosis Sanatorium to award each year two fellowships of \$1,200 per year each to young Arkansas physicians interested in post-graduate study of tuberculosis who have completed medical courses in an accredited Class A school and have had one year of internship.

The awards are made upon the recommendation of the Medical Director and his staff after an examination of all applications. It is to be paid out of any available cash fund of the institution and probably would not require a separate appropriation.



POSTWAR QUESTIONNAIRE

Prepared by the
NATIONAL EMERGENCY MEDICAL SERVICE COMMITTEE
of the
AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street, Chicago 10, Illinois

GENERAL INFORMATION

- 6-9. Graduate of _____
(Exact name of medical school)
- 10-11. Graduation _____
(Year)
- 12-13. Year of birth _____ 14-17. DATES: Entered military service _____
Month Year and Discharge _____
Month Year
- 18-20. At time of entering active military service you were in:
☐ Full General Practice ☐ Practice limited Exclusively to Specialty checked (✓) below ☐ General Practice with Special
Attention devoted to the ONE Specialty checked (✓) below ☐ Residency of type checked (✓) below ☐ Internship
- 21-22.
- | | | |
|---|---|---|
| <input type="checkbox"/> 1. Surgery | <input type="checkbox"/> 12. Ophthalmology | <input type="checkbox"/> 23. Pathology |
| <input type="checkbox"/> 2. Neurological Surgery | <input type="checkbox"/> 13. Otolaryngology | <input type="checkbox"/> 24. Clinical Pathology |
| <input type="checkbox"/> 3. Plastic Surgery | <input type="checkbox"/> 14. Ophthalmology—Otolaryngology | <input type="checkbox"/> 25. Bacteriology |
| <input type="checkbox"/> 4. Industrial Practice | <input type="checkbox"/> 15. Pediatrics | <input type="checkbox"/> 26. Public Health |
| <input type="checkbox"/> 5. Obstetrics | <input type="checkbox"/> 16. Neurology | <input type="checkbox"/> 27. Allergy |
| <input type="checkbox"/> 6. Gynecology | <input type="checkbox"/> 17. Psychiatry | <input type="checkbox"/> 28. Cardiology |
| <input type="checkbox"/> 7. Obstetrics and Gynecology | <input type="checkbox"/> 18. Neurology and Psychiatry | <input type="checkbox"/> 29. Gastroenterology |
| <input type="checkbox"/> 8. Orthopedic Surgery | <input type="checkbox"/> 19. Internal Medicine | <input type="checkbox"/> 30. Physical Medicine |
| <input type="checkbox"/> 9. Proctology | <input type="checkbox"/> 20. Tuberculosis | <input type="checkbox"/> 31. Thoracic Surgery |
| <input type="checkbox"/> 10. Urology | <input type="checkbox"/> 21. Anesthesia | <input type="checkbox"/> 32. _____
Other |
| <input type="checkbox"/> 11. Dermatology | <input type="checkbox"/> 22. Roentgenology, Radiology | |
- 23-24. If a Specialist, do you hold a certificate from any of the following American Boards?
Yes ☐ No ☐ If Yes, indicate which Board by (✓)
- | | | |
|---|---|---|
| <input type="checkbox"/> 1. Pediatrics | <input type="checkbox"/> 6. Urology | <input type="checkbox"/> 11. Otolaryngology |
| <input type="checkbox"/> 2. Psychiatry and Neurology | <input type="checkbox"/> 7. Obstetrics and Gynecology | <input type="checkbox"/> 12. Surgery |
| <input type="checkbox"/> 3. Orthopaedic Surgery | <input type="checkbox"/> 8. Internal Medicine | <input type="checkbox"/> 13. Anesthesiology |
| <input type="checkbox"/> 4. Dermatology and Syphilology | <input type="checkbox"/> 9. Pathology | <input type="checkbox"/> 14. Plastic Surgery |
| <input type="checkbox"/> 5. Radiology | <input type="checkbox"/> 10. Ophthalmology | <input type="checkbox"/> 15. Neurological Surgery |
25. Circle years of active service in the armed forces since 1939: 1 2 3 4 5 6 7
26. Your military service was with: ☐ Army ☐ Navy ☐ USPHS ☐ VA ☐ Other (explain) _____
1 2 3 4 5
27. Highest military rank _____
- 28-47. Name of region and months of service there:
- | Months | Months | Months |
|--|---|-------------------------|
| 1. N. America _____
(Entire Continent, including Alaska
and Aleutians, Canada, Central
America, Panama, etc.) | 5. Africa _____
(Entire Continent) | 9. South Pacific _____ |
| 2. S. America _____
(Entire Continent) | 6. China, Burma, India _____ | 10. Japan (Korea) _____ |
| 3. Br. Isles _____ | 7. Atlantic _____
(West Indies, Iceland, etc.) | 11. Other _____ |
| 4. Europe _____
(Including Mediterranean) | 8. Central Pacific _____ | |
48. Circle months of service outside U. S. A.: None 6 12 18 24 30 36 42 48 54 or more

MILITARY SERVICE

- 49-78. Nature of services, areas (write-in numbers 1 to 11 for areas as listed in Question 28-47 above) and duration:
N. B.—List ALL services and areas in which you served, even though the same (period of) months may be recorded more than once.

Areas (Use numbers)	Months	Areas (Use numbers)	Months
49-51. Hospitals _____	_____	70-72. Training of others _____	_____
52-54. Dispensaries _____	_____	73-75. Administration [Not (medical) Com- manding Officer] OR 76-80. You were (medical) Com- manding Officer (e. g. Hos- pital, Battalion, Ship, etc.) _____ Specify Unit _____	_____
55-57. Tactical Units _____	_____		
58-60. Troopship, L. S. T., etc. _____	_____		
61-63. Battleship or Cruiser _____	_____		
64-66. Smaller Ships, Destroyer, etc. _____	_____		
67-69. Shore Installations _____	_____		



OVER



POSTWAR QUESTIONNAIRE—Page 2

During COMBAT or NONCOMBAT service what proportion of a full day's work (by civilian standards) was, on the average, actually needed to perform the duties of your assignment?

106. Combat: (circle percentage) 20% 40% 50% 60% 80% 100% 110% 120% 150% _____%

107. Noncombat: (circle percentage) 20% 40% 50% 60% 80% 100% 110% 120% 150% _____%

108. What percentage of the doctors assigned to your unit were, in your opinion, actually needed: _____

109. What percentage of your time was devoted to nonprofessional duties? _____

110-114. Describe these nonprofessional duties: _____

115-122. Check (V) types of personnel that could have performed these nonprofessional duties:

115. ☐ MAC 116. ☐ Hosp. Corps. 117. ☐ First Aid 118. ☐ Clerks 119. ☐ Nurses 120. ☐ Other _____

TRAINING

123-128. Check (V) features of training you considered most useful.

123. ☐ Basic 125. ☐ Professional on the job 127. ☐ Tactical

124. ☐ Unit 126. ☐ Service School 128. ☐ _____

(Write in other features)

129-132. What important features of training were not sufficiently stressed? _____

133-137. What in your opinion should be included in an ideal training program? _____

ASSIGNMENTS

138. Rate the method of assignment you encountered: ☐ 1 Good ☐ 2 Fair ☐ 3 Poor

Comments: _____

139. Were you rotated in your assignment? ☐ Yes ☐ No

140-142. If there was waste of medical personnel in your unit, please state how personnel could have been used more effectively. _____

143-148. What suggestions have you about method of assignment of medical officers in the event of another military emergency? _____

PROFESSIONAL SKILLS

149. To what extent was effort made to utilize your professional skills: ☐ 1 Considerable ☐ 2 Some ☐ 3 Very Little ☐ 4 None

150-158. Did you regularly receive: 150. ☐ AMA Journal 151. ☐ State Journals 152. ☐ Specialty Journals 153. ☐ Technical Bulletins 154. ☐ BUMEDS 155. ☐ Theatre News 156. ☐ Bulletins 157. ☐ Army Medical Bulletin 158. ☐ County Medical Society Bulletins

159. Were there teaching clinics in your theatre? ☐ Yes ☐ No

160. Were there medical meetings in your theatre? ☐ Yes ☐ No

161-173. What suggestions do you have for helping the doctor in service to keep up professionally?

☐ Prompt receipt of latest literature ☐ Assignments better fitted to professional skills
☐ Surgical demonstrations ☐ Frequent review of your qualifications
☐ Hospital assignment ☐ Medical (non-military) staff meetings
☐ Refresher courses ☐ Library facilities
☐ Medical movies ☐ Other suggestions _____
☐ Lectures

ADDITIONAL REMARKS

If this space is insufficient to record your ideas, please attach your letter hereto.

(Optional) Signature



OVER

Address {

PROCEEDINGS OF SOCIETIES

The Benton County Medical Society met in dinner session at Rogers November 7th. W. R. Brooksher, Fort Smith, addressed the meeting on impressions of the hearings on the Murray-Wagner-Dingell bill before the Senate Committee on Education and Labor.

Geo. M. Love, Secretary.

The Craighead-Poinsett County Medical Society was addressed November 5th by R. M. Peel, Memphis, "The Management of Gallbladder Disease," and Carl Sanders, Memphis, "Diagnosis of Carcinoma of the Rectum and Colon."

J. H. McCurry, Secretary.

The Southeast Arkansas Medical Society has elected the following officers: President, Julius Hellums, Dumas; vice-president, C. G. Leverett, McGehee, and secretary-treasurer, M. C. Crandall, Wilmot.

Prairie County Medical Society has elected the following officers: President, W. M. Parker; vice-president, Edward Adams; president-elect, Travis Matthews; secretary-treasurer, J. C. Giliam; delegate, and alternate, Travis Matthews.

The Washington County Medical Society was addressed November 5th by Dr. F. G. Friedman on "The Veto and the Problem of Peace."

Ruth Ellis Lesh, Secretary.

The Ouachita County Medical Society met in regular monthly session at the Ouachita Hotel in Camden November 7, 1946. Speakers were as follows: "Rheumatic Heart Disease in Children," Sam Phillips, Little Rock, and "Diseases of the Liver," M. J. Kilbury, Little Rock.

R. B. Robins, Secretary.

The Sebastian County Medical Society was addressed November 12th by Ralph E. Crigler, "Carcinoma of the Colon and Rectum."

PERSONALS AND NEWS ITEMS

Jos. F. Shuffield, Little Rock, was one of the successful deer hunters in the November period.

Alan Cazort, Little Rock, attended the American Academy of Allergy at New York City during November

R. M. Eubanks, Little Rock, has been appointed chairman of the Alumni Committee for the College of the Ozarks building and expansion program.

A. A. Blair, Fort Smith, spent a November vacation at Edgewater Gulf Hotel, Mississippi.

The following attended the sessions of the American Academy of Ophthalmology and Otolaryngology in Chicago during October: Raymond Cook, Jack Brizzolara, K. W. Cosgrove and R. J. Calcote, Little Rock, and O. H. King, Hot Springs National Park.

Dr. and Mrs. Henry G. Hollenberg, Little Rock, spent a recent vacation in Cincinnati, Dayton and Eastern Shore, Virginia.

A. W. Thompson has been elected service officer of the Gurdon post, American Legion.

Miles F. Kelly has been elected commander of the Sheridan post, American Legion.

Dan H. Autry, Little Rock, has been appointed consultant in internal medicine to the Surgeon-General, United States Army.

C. W. Dixon, Gould, and B. M. Gardner, Star City, attended the Kansas City Southwest Clinical Society meeting in October.

Jos. A. Sanderlin and Ellis P. Cope, Little Rock, conducted a diagnostic cancer clinic at Clarksville November 8th.

D. L. Massey has been elected a director of the Blytheville Kiwanis Club.

The following attended the Oklahoma City Clinical Society sessions in October. W. F. Adams, and H. C. Dorsey, Fort Smith; W. S. Ellis, Fordyce; W. A. Fowler, and Alfred Hathcock, Fayetteville; J. A. Henry, Russellville; J. E. Huskins, and G. A. Hughes, Siloam Springs; O. R. Kelly, Sheridan, and H. D. Wolfe, Fort Smith.

P. W. Lutterloh has been elected a director of the Jonesboro Chamber of Commerce.

Dr. and Mrs. T. G. Porter, Hazen, are spending the winter at Phoenix, Arizona.

Paul L. Mahoney, Little Rock, has been elected a member of the American Broncho-Esophageal Association.

Fred Hames, Pine Bluff, conducted a diagnostic cancer clinic at Stuttgart November 7th.

J. T. Polk has been elected surgeon of the Kesier post, American Legion.

Henry G. Hollenberg, Little Rock, recently addressed the Arkansas Education Association on "The Value of Cancer Education in the Schools."

W. O. Loftis has been released from military service and has returned to practice at Pochontas.

H. W. Savage, now located at Harris Methodist Hospital, Fort Worth, has received the Legion of Merit.

J. C. Barnett has been released from military service and has purchased the Estelle Hospital at Heber Springs.

The following attended the Miami session of the Southern Medical Association: J. Leo Aday, Little Rock; Hoyt R. Allen, Little Rock; C. A. Archer, Jr., Conway; J. R. Barnett, Arkadelphia; W. H. Bruce, Pine Bluff; F. Walter Carruthers, Little Rock; W. W. Chamberlain, Hot Springs National Park; H. C. Chanault, Little Rock; Hoyt Choate, Little Rock; J. F. Clark, El Dorado; J. W. Cole, Sheridan; Ed L. Dunaway, Conway; J. C. Gladden, Harrison; W. G. Hodges, Malvern; R. H. Huntington, Fayetteville; F. H. Jones, Piggott; T. H. Jones, Waldo; R. R. Kirkpatrick, Texarkana; C. E. Kitchens, DeQueen; W. G. Klugh, Hot Springs National Park; J. C. Land, Walnut Ridge; L. M. Lile, Hope; O. C. Melson, Little Rock; L. H. McDaniel, Tyronza; G. F. McLeod, Magnolia; B. C. Middleton, Texarkana; W. V. Newman, Little Rock; C. E. Oates, North Little Rock; R. W. Pickett, Texarkana; J. P. Price, Monticello; L. D. Reagan, Little Rock; R. H. Rigdon, Little Rock; Porter R. Rodgers, Searcy; W. P. Scarlett, Little Rock; J. A. Summers, Little Rock; A. B. Tate, Russellville; J. B. Tate, Texarkana; H. King Wade, Hot Springs National Park; C. Fletcher Watson, Little Rock; Robert Watson, Little Rock.

Hoyt R. Allen, Little Rock, has been elected secretary of the section of proctology, Southern Medical Association.

Fred Hames, Pine Bluff, attended the American Cancer Society meeting at Edgewater Park, Mississippi, during November.

T. N. Rodman has moved from Newport to Leachville.

C. A. Archer, DeQueen, has been appointed a member of the Arkansas State Board of Health.

INSANITY: INQUISITIONS AS TO

When a person is charged with crime in the circuit court, and the defense of insanity has been raised in his behalf, or the circuit judge shall be of the opinion that there are reasonable grounds to believe that the defendant was at the time of the alleged commission of the crime, or is at the time of the trial, insane, the judge shall commit the defendant to the state hospital for nervous diseases, where the defendant shall remain under observation for such time as the court shall direct, not exceeding one month. There some physicians connected with the state hospital shall conduct observations and investigations of the mental condition of the defendant, and prepare a written report thereof.

The report of the state hospital shall not preclude the state or defendant from calling other expert witnesses to testify at the trial, and such expert witnesses shall have free access to the defendant for the purpose of observation.

The written report prepared by the state hospital shall indicate separately the defendant's mental condition during the period of the examination, and his probable mental condition at the time of the alleged offense.

The doctors who prepared the report shall be called upon to appear as witnesses at the trial, on request of either party, but shall receive no fees from either party.

The method of inquiring into insanity, above set out, is contained in Section 11 and 12, initiated Act No. 3, adopted by the people at the general election on November 3, 1936. This Act changes the law very materially as to insanity examinations, for prior to its enactment no provision was made for unbiased testimony, but the question of the insanity of the person charged with crime was inquired into only by witnesses called by one or the other of the parties, i. e., either by the state or the defendant. Sections 11 and 12 of Act 3 (Criminal Reform Procedure Act) will correct this evil, and juries and courts will no longer be required to depend solely on expert witnesses, the appearance of which has been arranged for by the parties in interest, with the consequent personal element being involved.

One of the outstanding statutory changes relating to mental illness was Act 241 of 1943. Now any person suffering mental illness may voluntarily apply for admission to the State Hospital. Where a patient is a minor, his par-

ents or guardian my apply. In cases needing immediate hospitalization for acute psychosis, including alcoholism or drug addiction, the patient may be admitted upon written request of any health officer or physician. Previous to this enactment, patients had to be committed by formal order of the probate judge adjudging the patient to be insane.

In event a mentally ill person is deemed dangerous by the Superintendent of the State Hospital, a health officer or physician, upon application to the Probate Court, he may still be committed by a court order after a hearing.

AUXILIARY NEWS

The Auxiliary to Bowie-Miller Counties Medical Society met at the home of Mrs. R. R. Kirkpatrick Friday, October 25, for the regular meeting. Co-hostesses were Mrs. C. R. Frank and Mrs. Joe Tyson.

Business meeting was presided over by the president, Mrs. N. B. Daniel.

Mrs. L. J. Kosminsky gave an interesting talk on "American Medical in San Francisco"—the meeting from which she and her husband have just returned.

Medical current events were given by Mrs. Fuller, Mrs. P. J. Phillips and Mrs. W. L. Kitchens.

Refreshments were served from a beautifully-appointed table decorated with yellow pompon chrysanthemums. Mrs. N. B. Daniel and Mrs. Kosminsky presided over the table.

The Auxiliary to the Jefferson County Medical Society met for a luncheon at Hotel Pines Tuesday, October 29, with Mrs. Virgil Payne, Mrs. Ross Maynard, Mrs. Allen Russell, as hostesses.

During the business session, presided over by Mrs. L. K. Hundley, president, it was voted that the Auxiliary sponsor several projects which had been recommended by the Superintendent of Davis Hospital, Mrs. T. J. Cunningham, secretary, reported. The following committees were appointed: Hospital grounds, Mrs. J. S. Jenkins, chairman; Mrs. Ross Maynard, Mrs. John Walker, and Mrs. O. W. Clark. Sewing committee, Mrs. Benjamin Luck, Jr., chairman; Mrs. Fred Hames, Mrs. R. D. Dickens, Mrs. George Talbot, Mrs. Allen Russell, Mrs. Ross Maynard, Mrs. H. J. Morris, Mrs. W. H. Bruce, Mrs. J. S. Spillyards, Mrs. C. W. Reid, Mrs. Carl H. Adams, Mrs. T. J. Cunningham, Jr. Projects, Mrs. John K. Walker, chairman. Doctor's Day, Mrs. R. D. Dickens.

Following a brief talk by Mrs. J. C. Beard,

it was agreed to assume responsibility for furnishing clerical help for the X-ray screening of the Jefferson County T. B. Association. Mrs. Arthur Fowler will serve as chairman of the committee in charge.

The president announced the following committees: Membership, Mrs. W. H. Bruce; Telephone, Mrs. Charles Reid, and Mrs. George Talbot; Overseas relief, Mrs. Charles Reid, and Mrs. Arthur Fowler. Education and public health, Mrs. Harold Morris, Mrs. E. C. McMullen and Mrs. I. C. Moore. Hygiene, Mrs. J. S. Spillyards. Public relations, Mrs. T. J. Cunningham, Jr. Oates Student loan fund, Mrs. Virgil Payne; Physical health examination, Mrs. Allen R. Russell Cancer control, Mrs. W. T. Lowe; Jane Todd Crawford memorial, Mrs. A. Fowler, Sr., of Humphrey; Erle Chambers memorial librarian fund, Mrs. George Talbot; Entertainment, Mrs. Hunter A. Causey; Courtesy, Mrs. Carl Adams.

Present were—Mrs. J. C. Beard, Mrs. W. H. Bruce, Mrs. C. K. Caruthers, Mrs. O. W. Clark, Mrs. T. J. Cunningham, Jr., Mrs. R. D. Dickens, Mrs. Arthur Fowler, Jr., Mrs. Fred Hames, Mrs. L. K. Hundley, Mrs. J. S. Jenkins, Mrs. Ross Maynard, Mrs. H. J. Morris, Mrs. Virgil Payne.

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Mrs. Charles Reid, Mrs. Allen Russell, Mrs. J. S. Spillyards and Mrs. George Talbot.

Mrs. H. H. Smith and Mrs. W. R. Brooksher, Jr., were hostesses November 11th, for the November meeting of the Auxiliary of the Sebastian County Medical Society.

Luncheon was served at 12:30 o'clock. Mrs. Fred Krock, president, presided over the business session. The Auxiliary voted \$10 to the Arkansas Medical Student Loan Fund, and voted to contribute to the Erle Chambers Memorial Library Fund for the purchase of books for the Arkansas Tuberculosis sanatorium at Booneville.

The Auxiliary also voted to renew subscriptions for "Hygeia," the official publication of the medical association, which is sent to the Girls' club, the Rosalie Tilles children's home, the Young Women's Christian Association, Carnegie Library, the Booneville Tuberculosis Sanatorium.

The next meeting will be held the second Monday in January.

Present at Monday's meeting were Mrs. Krock, Mrs. Smith, Mrs. Brooksher, Mrs. Kenneth Thompson, Mrs. H. C. Dorsey, Mrs. Hugh Johnson, Mrs. Jim Johnson, Mrs. S. P. Stubbs, Sr., Mrs. A. A. Blair, Mrs. Walter Eberle, Mrs. J. S. Southard, Mrs. A. S. Koenig, Mrs. Mabel Scott, Mrs. B. L. Ware and Mrs. W. F. Rose.

Mrs. W. F. Rose, Publicity Chairman
Sebastian County Medical Society
Auxiliary.

The Woman's Auxiliary to the Union County Medical Society met November 14, 1946, in the home of Mrs. G. D. Murphy, Sr., Calion Highway, with Mrs. L. G. Fincher, serving as co-hostess. The living room was beautifully decorated with seasonal flowers. A four-course luncheon was served to 12 members. Dr. H. J. Mayfield gave an interesting discussion on his observation of socialized medicine in Europe.

Gifts of tray cloths and napkins were then presented to Mrs. L. G. Fincher by members of the Auxiliary for the new Fincher Clinic.

The business meeting followed with the reading of minutes by Mrs. Warren Riley, secretary. Mrs. G. D. Murphy, Sr., was appointed chairman to prepare a Thanksgiving basket for some needy family with illness in home. All old toys are to be given to Mrs. B. L. Moore, and she in turn will give them to the Fire Department for repairs. Meeting was adjourned.

Mrs. Jack M. Sheppard, Corresponding Secretary, Union County Medical Society.

BOOK REVIEWS

Preoperative and Postoperative Treatment, edited by Lt. Col. Robert L. Mason, M.C., A.U.S., Cushing General Hospital, Farmingham, Massachusetts; and Harold A. Zintel, M.D., Harrison Department of Surgical Research, University of Pennsylvania School of Medicine; Assistant Surgeon, Hospital of the University of Pennsylvania. Second Edition. 584 pages, with 157 illustrations. Philadelphia and London: W. B. Saunders Company, 1946. Price \$7.00.

This book is recommended to all surgeons. The first section discusses general considerations; the second describes the application of these principles to surgery by regions. The book covers fully the care and management of the ordinary as well as the unusual complications of surgical procedures. An appendix provides a convenient reference source.

Practical Malariology, by Paul F. Russell, M.D., M.P.H., Colonel, M.C., A.U.S., Parasitology Division, The Army Medical School, Field Staff, International Health Division, Rockefeller Foundation (on leave). Luther S. West, Ph.D., Head of Biology Department, Northern Michigan College of Education, Major, Sn.C., A.U.S. (Reserve); formerly Entomologist, Parasitology Division, Army Medical School. Reginald D. Manwell, Sc.D., Professor of Zoology, Syracuse University, New York; formerly Captain, Sn.C., A.U.S., Protozoology Section, Parasitology Division, Army Medical School. Cloth: pp. 684, with 238 illustrations. Philadelphia: W. B. Saunders Company, 1946.

This volume is another of the excellent military manuals prepared under the auspices of the National Research Council for use of the Armed Forces in World War II. Begun near the close of the war it was not completed until after the cessation of hostilities. However, it is particularly adaptable for civilian needs. Following a brief but thorough historical introduction, the contents are divided into six main sections. In the first are detailed information about the morphology and physiology of human and animal plasmodia, together with an excellent discussion of field and laboratory technique used in identification and cultivation of malaria parasites. The second section deals with the morphology, taxonomy and life cycle of the mosquito vectors. The pathological, clinical and therapeutic aspects of malaria are discussed in the third section, while sections four and five present problems of epidemiology and control of the disease. Therapeutic malaria is briefly discussed in section six.

Sections one and three will be found particularly helpful to the physician and clinical laboratory. The illustrations showing the various stages of development in the blood are excellent. The color reproduction of staining qualities is more accurate than usually seen in most texts.

Various laboratory methods are discussed in detail, advantages and disadvantages of each being pointed out. The discussion of the pathology and therapeutics of malaria includes all of the recent developments and information gained by experience in the past war.

The remaining sections should be of primary interest to entomologists and public health departments. No public health agency in portions of the United States where malaria is endemic should be without the reference material provided in this book. The use of DDT in the control of mosquitoes and insects is thoroughly discussed.

The text is well organized and very readable. The illustrations and diagrams on the whole are excellent. This volume deserves to become one of the standard texts for all students of Malariology.

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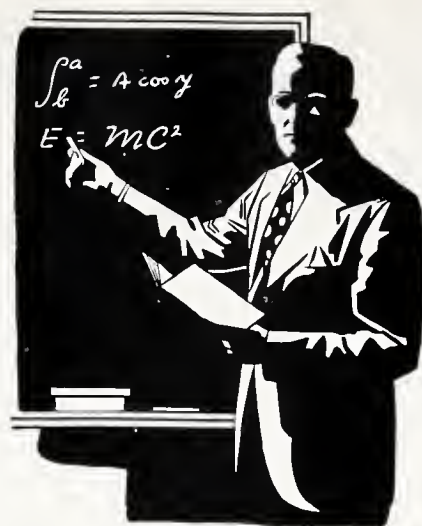
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No. 8

THE ETIOLOGY OF ESSENTIAL HYPERTENSION

ROBERT S. FAIRCLOTH, M. D.
Walnut Ridge

Essential hypertension should be considered that form of hypertension where no etiological agent can be ascribed. It is incorrect to speak of essential hypertension due to tumors of glands of internal secretion, toxic causes, and others.

Reports differ as to the predominating sex affected, but on the average it is probably safe to say that there are approximately the same in both sexes. Likewise it seems to be equally common in the various social strata of civilization. That it is in part at least an environmental entity is shown by the fact that in Africa hypertension is practically unknown amongst the primitive tribes, whereas among negroes living in the states, and particularly the urban sections, it is quite common. Even if this difference could be explained by the impurity of the race, we should certainly expect a much lower occurrence in negroes than in whites.

I think that too much emphasis has been placed on the hereditary entity. It is a prominent fact that there is a marked familial tendency towards the disease and its associated ailments, but such knowledge gets us nowhere. The familial tendency in elevated blood pressure is not towards the essential hypertension, but towards the causative factor.

Essential hypertension is a disease in which practically every organ in the body has been accused of playing a role. It is found more in sthenic than in asthenic body build, and Maschowitz believes that it is caused in these people by a congenital hypoplasia of the arterial tree.

Vaquez has been particularly active in expounding the belief that hypertension is due to a hyperepinephrinemia, and has described the frequency of coexisting suparenal hyperplasia and hypertension, while Oppenheimer and Fishberg found cortical adenomas more common in hypertensive patients. But since suparenal hyper-

plasia frequently occurs in the absence of hypertension and since the adrenal cortex has never been definitely shown to exert any influence on the secretion of epinephrine by the medulla, it is not easy to see a constant relation between these causes and effects. Wisil et als. have thought that they observed hyperplasia of the suparenal medulla in hypertension, but analysis failed to show that these glands contained more epinephrine than those of persons without hypertension. However, it is well known that tumors of the adrenal cortex do give rises in blood pressure, as in Cushing's Syndrome, and this possible cause of essential hypertension cannot be completely eliminated.

Although a salt-free diet sometimes markedly reduces an elevated blood pressure, patients with essential hypertension have an adequate renal function and do not retain chlorides or other inorganic substances that may contribute to the picture. Gout and uric acid retention are frequently seen in hypertensives, but the combination is apparently of no significance, as both usually occur in the same type of individual, and hypertension in young gout patients is practically never seen.

Whereas, the nervous system is intimately concerned with the blood pressure, it apparently does not play the most important role. A reduction in the cerebral blood supply, increased acidity about the medulla, infection of the bulb with the poliomyelitis virus, and psychic influences are able to appreciably raise the blood pressure, but, except for the latter, these findings are a rarity in essential hypertension. Recently there has been a great deal of evidence to show that chronic emotional disturbances may probably play a leading part in a large number of cases of hypertension. Personal communication with Drewery at the Medical College of Virginia states that recently a patient of his with high blood pressure had the hypertension returned to normal coincidentally with an episode of acute schizophrenia. Other cases show a progressive reduction in hypertension with psychoanalysis.

In a neurological study of the disease, Dr. Harvey Cushing thought that the abnormal ele-

vation in blood pressure was due to an overabundance of pressor substance from the posterior lobe of the pituitary. This he concluded on the foundation that in Basophilic adenoma (Cushing's Syndrome) there is frequently an associated hypertension, and also Berblinger had found on histological study an increase in the basophilic elements of the pituitary in many varieties of hypertension. To counteract this opinion, however, no one has ever been able to prove that there is an excess of pressor substance, and, in addition, Cushing's Syndrome is frequently associated with a suparenal tumor, which is probably the more likely source of the hypertension. A neurogenic factor cannot be definitely eliminated, however, as it has been shown that a suitable serum injected into rabbits causes nephritis associated with hypertension, and that previous renal denervation does not alter the intensity of the serum nephritis, but does prevent occurrence of hypertension in such cases. In addition, Pickering, in acute glomerulonephritis, found an increased blood flow through the hand on removal of the vasomotor tone, and the increase was proportional to the increased blood pressure, a finding speaking for a vaso constrictor of nervous rather than of humoral origin. Moreover, an abnormal hyperactivity of the peripheral vessels is the basis of the cold test of Hines and Brown by which prehypertensives may be more or less successfully diagnosed. In spite of these things however, Goldblatt has shown that complete extirpation of the sympathetic nervous system in the thorax and abdomen, section of the splanic nerves, section of the anterior nerve roots from the sixth dorsal to the second lumbar inclusive and even pithing have failed to prevent or permanently reduce the elevated blood pressure in his experimental animals. This does not eliminate the possibility and probability that in humans the nervous system may cause the hypertension to exceed that produced by renal ischemia, but it does speak strongly against any really important part played by this system in the ordinary cases of hypertension.

Quite frequently the onset of hypertension coincides with the menopause, and may even occur at the time the patient is castrated surgically or Roentgenologically. It is apparent that this is caused by the deficient ovarian secretion, but the relationship between these phenomena is not clear, as certainly not everyone experiencing the menopause develops hypertension. Alvarez believes that the change in life is only the precipitating factor when there

is a familial tendency towards the disease. Occasionally women with fibromyomata uteri develop hypertension, which some investigators claim returns to normal upon removal of the tumor.

Certain toxic substances, as lead, produce hypertension by acting directly upon the smooth muscle, and lead can also produce renal lesions, which may be a possible explanation of the persistent hypertension years after lead has ceased to be demonstrated in the excreta. Alcohol and tobacco have often been accused of playing an evil part in the origin of the disease, although the best available evidence would seem to indicate that habitual users of these tend to have a lower blood pressure than normal. Moreover, no correlation can be shown between autointoxication and hypertension. Syphilis was thought by Stoll to play an important part in essential hypertension, but thorough studies do not reveal a higher percentage of positive serologies in hypertensives than in the average hospital population. Also, anti-syphilitic therapy has little or no effect on hypertension inluetics or non-luetics.

Allergy may occasionally cause an elevated blood pressure which falls on removal of the allergens, but there is no convincing evidence that the ordinary conception of allergy is a cause of essential hypertension.

Many writers have tried to implicate faulty protein metabolism, but investigation fails to reveal that hypertension is more prevalent in those individuals whose diet consists largely of meat than it is in vegetarians. Furthermore, large amounts of protein apparently do not predispose to hypertension and nephritis in patients with scarlet fever. Of more importance is obesity, with which 58 per cent of adults have hypertension, and this hypertension is frequently relieved with a reduction in weight.

Thyrotoxicosis produces signs similar to essential hypertension in that there is an elevated systolic pressure, but a wide pulse pressure is present, and the diastolic reading is usually normal or below. Of course, there may be, as is frequently the case in elderly patients, a co-existing hypertension when both systolic and diastolic pressures are up. Now and then with hypothyroidism there is a paradoxical rise in blood pressure, even in young people. Fishberg reports a case of this type where the patient died at the age of 21 of a cerebral hemorrhage.

Associated with hypertension often, particularly in elderly persons, is diabetes. That diabetes,

however, is not the cause of the hypertension is shown by the fact that even in very severe diabetes of youth hypertension is practically never seen. It may be that the arteriosclerotic changes that cause interference with the pancreatic functions also give renal arteriosclerosis with hypertension. Somewhat connected with this is cholesterol metabolism, which even by itself undoubtedly plays an important part in arteriosclerosis and hypertension. Nothing definite is known unfortunately, as the artificial production of a hypercholesterolemia, even over long periods of time, does not produce lasting hypertension.

Until Goldblatt produced persistent hypertension without impairment of renal function to any degree, it was considered by most that essential hypertension was not of renal origin. Since then the idea of the renal entity has been revived. By far the greatest majority of patients with essential hypertension that come to necropsy show renal arteriolar sclerosis. It was, in fact, this almost constant pathological change that initiated Goldblatt experimentally, for he states that he used for his working hypothesis in the study of hypertension the following: "If organic disease of the kidney be the elementary factor in the pathogenesis of benign essential hypertension, then this disease is in all probability the arteriolar sclerosis which is so frequently associated with this condition. If arteriolar sclerosis limited to the kidney can be the primary factor in initiating this type of hypertension, then the necessary condition for the establishment of the renal origin of essential hypertension upon an experimental basis should be the production of hypertension in animals by any method which will produce at least the physiological effects of such renal vascular disease. Since there is no known way of producing arteriolar sclerosis localized in the kidney, it was thought that the effects of arteriolar disease could be reproduced by constricting the main renal arteries." In addition, Goldblatt has shown to substantiate the theory of reduction in renal blood flow that in essential hypertension the blood flow through the kidney, as shown by the diodrast clearance, is below normal, and it has been further shown by some investigators that the kidney of chronic nephritis is more resistant to injection, showing that under normal pressure in this disease there must also be a reduction in the volume of blood passing through the kidneys.

In the few cases of essential hypertension that do not show arteriolar sclerosis at autopsy, I think we must consider that the section was not

made in a region of the kidney where the sclerosis was present, that there was some other cause of a reduction in renal blood supply (as an atheromatous plaque partly occluding the renal orifice of the aorta, which I have seen, or an extra renal entity (and change the diagnosis from essential hypertension.)

The exact mechanism of production of the hypertension in Goldblatt animals is not perfectly understood. It certainly is not due to any loss of kidney function, as complete removal of both kidneys will not cause hypertension, and in many cases of high blood pressure no reduction in kidney function measured by any known method can be found. Although Fasciolo, Houssay and Faquni have been able to show that there is an actual vasoconstrictor agent present in the blood from the renal vein of a Goldblatt dog, no one has ever been able to demonstrate a pressor substance in the blood of hypertensive humans.

If in essential hypertension the elevation is due to a humoral factor, as is now more or less universally granted in Goldblatt animals, then it is very likely that as a consequence of the slowing up of the irrigation of the kidney with blood, certain chemical changes occur within the organ itself. These changes produce substances which, absorbed by the circulation, act directly or indirectly upon the peripheral vessels in a stimulating manner. It may be, however, that certain blood borne products are changed to exert a pressor effect, for it is known that the ischemic kidney does not possess the same power of hydrolyzing saccharose or of reducing methylene blue and other dyestuffs, and it is at least possible that this diminution in the power of hydrolysis and reduction may be the source of the production of substances which can cause an increased vascular tone.

At this point it is interesting to note an apparent difference in blood pressure behavior in man and in dogs. Goldblatt has never been able to produce permanent hypertension in dogs by unilateral renal manipulation, while in man there are numerous records of unilateral lesions causing an elevated blood pressure that has persisted over a period of years. In a study of 97 cases of hypertension with unilateral renal diseases, Oppenheimer has shown that those with a unilateral narrowing of the main renal artery, its orifice, or the main extra renal branches presents an undoubtedly high percentage of hypertension, an incidence of 83 per cent. Wilson and Byrom suggest that humans behave more like the rat in this respect, as they have demonstrated that permanent hypertension with all its consequences

can be produced in this animal by constricting one renal artery.

Certainly it seems that most human pathological material speaks for the Goldblatt mechanism, although there are some facts that complicate the picture and do not coincide with the known experimental findings. In one series of human cases where there was obstruction to one renal artery, sections of both kidneys revealed either arteriosclerosis or arteriolar sclerosis, and in some cases the findings were compatible with malignant nephrosclerosis. This is not in accord with the experimental findings of Goldblatt, who found no alteration in the arterioles of the ischemic kidney, the only organic change being the hyalinization of the retinal arteries. It may be logical to assume that the arteriolar sclerosis and hypertension came first and only later did the narrowing of one renal artery intervene, for, unless man behaves more like rats than dogs, it must be reasoned that hypertension can be produced by a unilateral renal lesion only if the remaining kidney is impaired or if the pressor substance from the ischemic kidney exceeds the anti-pressor substance from the non-ischemic kidney.

Crile claims the cure of an early case of essential hypertension in a man, aged 22, who showed eyeground changes of grade I by coeliac ganglionectomy. After seven years the blood pressure is normal and the pathological findings in the eyegrounds have disappeared. He considers this evidence for the neurogenic origin of the disease and he compares early hypertension with early carcinoma of the breast as far as the surgical problem is concerned. It is possible that severing these nerves reduces the blood pressure indirectly by increasing the blood to the kidneys, and not by just allowing excess blood to be stored in the viscera.

Keith, Pearman, et al. consider the problem, but feel that the kidney probably does not play the most important part in essential hypertension. Pearman, in a series of 12,000 hypertensives, found an indication for intravenous urography in only 500, and of these, 295 have had a normal excretory urogram.

Cohn reports that in the investigation of 250 cases that had been diagnosed essential hypertension, many of which had a normal concentration and urea clearance test, a thorough urological study revealed a variety of renal diseases in 45 per cent. These included kinks in the ureter and utero pelvic junction—obstruc-

tions which might conceivably change at death or be missed at autopsy.

In conclusion, it may be said that from the literature our attention must be mainly focused upon the kidney, or upon the psychological background, possibly upon both, inasmuch as in ordinary persons the only two things that consistently give a permanent reduction in hypertension are psychotherapy and surgical procedures aimed at increasing the blood flow to the kidneys, or removal of a damaged kidney where such is present.

Summary

1. No definite glandular abnormalities or toxic substances have been shown to play an important part in essential hypertension.

2. The most constant finding at autopsy is renal arteriolar sclerosis, and upon this foundation Goldblatt instituted his experiments.

3. Renal artery constriction produces no organic pathologic change, save that of hyalinization of the retinal arteries, which speaks against the hypertension causing the renal arteriolar sclerosis.

4. In some series a large percentage of cases diagnosed as essential hypertension subsequently were shown to have a demonstrable urinary lesion.

5. Psycho therapy, neurological surgery, or renal surgery, outside of the obese patients whose blood pressure can be reduced with a reduction in weight, offers the best prognosis.

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THE FIELD ARMY AND THE PROFESSION*

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My association with organized medicine and with medicine as such, dates back to 1929. I received my original indoctrination in my kinship with you when business manager of a small clinic in a town of 750, and serving at the same time as secretary of a 14-member county medical society. As business manager, I was on numerous occasions drafted to be an instrument bearer, a leg puller (not in the vernacular sense, but in the scientific sense.)

Following that I was fortunate in having an opportunity to be associated with the peer of state medical society secretaries, Mr. J. G. Crownhart, then secretary of the State Medical Society of Wisconsin. It was during my early training with him that I had the opportunity to make a comparison and a valuation between the work that can and was being done by an intensively organized and an effective State Medical Society and the work of a voluntary group. For many years the State Medical Society of Wisconsin conducted both a professional education program and a lay education program. It formed one of several activities of the Society and by the standards of that day was an effective discharge of the obligation as then envisioned.

Through the facilities of the Extension Division of the University of Wisconsin, the State Medical Society was able to enroll many physicians to attend the graduate instruction and to promote public forum meetings for the general public. We were more pleased than I can convey to you to see the dramatic change in the ability to reach the public with cancer information of the then Women's Field Army and the work of the American Society for Control of Cancer and the State Medical Society of Wisconsin.

Where the medical society had been able to reach their own members effectively and the general public in a limited way, it was possible for this voluntary public organization to reach thousands of individuals in a period of months in comparison to the relatively few reached by the medical society over a period of years.

The Field Army as originally conceived was

primarily and shall I say exclusively a public education group. We as a profession were told by the then regional medical director of the American Cancer Society that the Field Army would be used exclusively as a public education organization and as such we heartily endorsed it. As a matter of fact, the chairman of our Executive Committee, who was also chairman for many years of the State Medical Society Committee on Cancer, himself, obtained an appropriation from the State Medical Society as working capital for the first campaign for money by the Field Army in Wisconsin.

The American Cancer Society has a pattern, a tool, a medium, which is of inestimable value to it, to the public and to the profession, for it should be said here that that which accrues to the benefit and profit of the public inevitably and inseparably accrues to the benefit and profit of the profession.

The Field Army, as you know, was laid upon the cornerstone of the Health Division or Committee of the Federation of Women's Clubs. From that point on it engrafted to itself the interest of a host of other women's organizations and within the past months, almost, has embraced to itself the interest of many men's organizations. The name Women's Field Army has been dropped and the organization or the division of the American Cancer Society is now known simply as the Field Army.

They have in Arkansas performed valiant service with which many, if not all of you, are thoroughly acquainted. I know that here as in every other state in the United States the Field Army has at every turn begged for, cajoled and insisted upon medical supervision, guidance and council for everything they have done. For that reason they have won meritoriously the respect and admiration of the profession. They have reached out into the by-ways and highways not only of Arkansas, but of every state in the Union bringing the message of early awareness of cancer symptoms to Mr. and Mrs. John Q. Public. It has been demonstrated beyond peradventure that where they have conducted their programs, the individual patients have sought and obtained medical advice and treatment earlier when you, as a profession, could do more for them.

I remember having called to my attention an area in the United States where by nature, there was a geographical separation due to a river. On one side there was an active thorough-going public education program conducted by the Field Army and on the other side of this river

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little or no work was done. On that side which had the advantage of Field Army public education, 40 per cent of the patients consulted physicians early enough where a hopeful prognosis could be given. On the other side of the river, almost within a stone's throw, in that area where no educational program was conducted, only 10 per cent reached their doctor's office early enough where the knowledge and skill of the general practitioner could be brought to bear on the disease at a point where hopeful prognosis could be made.

Another example of the value of public education through the Field Army is demonstrated by another totally unrelated finding in that where cancer education has been carried on over a period of years here has been a gradual diminution of the weight and dimensions of the gross specimens removed.

I feel that the primary objective of the Field Army is still and should be and ever continue to be that of public education. They are uniquely fitted for the job and can do it with both graciousness and effectiveness if the profession will continue to give them the close and intimate and constant guidance and supervision which they themselves ask for and insist upon everywhere. Should there be any divergence of thought or direction, I think it will be or can be assessed to the unanswered call for that guidance and supervision of their chosen objective.

You, as practicing physicians in your day by day practice, can and will see the concrete evidence and fruitfulness of their efforts. You can give yeoman service to your profession and to the public—your patients by giving of your time, your advice and your council when called upon.

The American Cancer Society by rigid policy, from which I am happy to say there has never been the slightest deviation, has instructed and clearly delineated to the Field Army that they shall not, they cannot and they must not own or operate hospitals, clinics or treatment centers of any kind. There is no inclination or desire on their part to invade the field of the treatment of the sick. They know and recognize that in the field of public education alone there is such a tremendous and vast uncultivated field before them that they do not look upon the question of treatment as a possible green pasture.

The American Cancer Society, in cooperation with the Council on Medical Service and Public Relations of the American Medical Association, has worked out a mutually satisfactory program for such activities as the American Cancer So-

ciety might engage in that would fall into the category of service. The cornerstone upon which this cooperative understanding and effort was based was (and this was ever foremost in the mind of Mr. Neff, the then executive director of the American Cancer Society, in directing and counselling the Service Committee of the Society in its negotiations with the American Medical Association) that each and every phase of the service program in each county and each state have the full approval, endorsement and enthusiastic support of the county and state medical association. Upon this and other grounds the House of Delegates of the American Medical Association confirmed the recommendation of the Council on Medical Service and Public Relations of the American Medical Association in the further development of the service program of the American Cancer Society.

In the past there has been heaped upon the American Cancer Society vituperative criticism. In many cases I know that that criticism was merited. There has been a new day in a new era in cancer in the United States. It used to be the American Society for the Control of Cancer. The name has been changed to the American Cancer Society and with that change there has been even a more complete change of the effectiveness and virility of the organization.

As I outlined to you earlier, it has been my privilege to be closely allied with medicine and to have had an understanding of the scope, effectiveness, intent and direction of many of the public health agencies and organizations. As I stand before you and weigh carefully the words, I am confident when I say that I am certain that the American Cancer Society is destined to be the largest health organization in the United States supported by voluntary public contributions.

Now the American Cancer Society is in the midst of a nationwide fund-raising campaign to raise 12 million dollars. Why and for what you may ask. It is for a three-fold program of education, research and service.

Research receives 25 per cent of all funds raised. This money is disbursed or administered under the guidance and supervision of the National Research Council. There are some 17 or 18 committees that study the various applications for research funds and their recommendations are all reviewed by the National Research Council and the final recommendations are made to the American Cancer Society. For the first

time there has been established a correlation and coordination of cancer research.

The service program of the Society is as I stated earlier executed by the State Divisions by and with the approval first of the county medical society. Some of the activities or projects which have been suggested by the national organization include detection centers, where under standards established jointly by the Council of Medical Service and Public Relations of the American Medical Association and the American Cancer Society, presumably well people are examined as a means of screening to detect lesions that might be cancer. Those with suspicious lesions are referred to their physician. Cancer dressings construction is another suggested project, where discarded sheets, pillow cases, napkins and table cloths are fashioned into dressings by volunteers. Funds retained in the states can likewise be used to purchase appliances and equipment, to assist in tumor clinics, diagnostic clinics and for the provision of loan closets.

It is in the field of education that the greatest good for the greatest number can be done. First, let us discuss public or lay education. We tell the public, that which you already know. We tell them three simple things, changed around from time to time and dressed differently, but always essentially the same. 1. The seven cancer danger signals. 2. Three methods of treatment. 3. The hope of cure. We tell them that each year there are 175,000 people who die in the United States from cancer. We tell them that it is the second cause of death. You know and I know that cancer is no respecter of sex—but it is necessary to let the men in the United States, especially, know that cancer is not a woman's disease, for 48 per cent of the deaths are men and 52 per cent women. It is important to tell the public that cancer is no respecter of age. That more children die of cancer than of infantile paralysis. That it ranks as the sixth cause of death in children under five years—that in the age group of 5 to 24 it is the fourth cause of death and in the next age group, 25-34, it is the third cause of death and that beyond 35 it is the second cause of death.

The second package that we have to sell the American public is that there are only three methods of treating cancer, namely, surgery, X-ray and radium. The third package we have to sell the American public is that from one-third to one-half of those who now die could

be saved if they but knew AND ACTED upon the seven cancer danger signals.

The next main category of education comes into the field of professional education. This is an activity that is carried on by the state or county medical societies, but financed in part or in whole from funds made available to the organized profession from the Field Army of the American Cancer Society. The nature of the postgraduate training is selected and dictated by the Society affected. Among some of the methods employed are (1) refresher courses (2) state and county medical society guest speakers and (3) fellowships and in residence training.

The physician's role in public education:

I have said that the American Cancer Society is destined to be the largest health organization in the United States. That means that there will be a great deal of activity in your own local community. It is up to you individually to stimulate your county medical society to action and active cooperation. You as individual physicians should take this real opportunity to guide and formulate the policies and direction of this health organization. The American people have been awakened to the magnitude of the problem and where the American people have been awakened to a need—they in their resourcefulness have found a solution. They look to you for that leadership because you are the only ones trained to exercise that leadership. Should you fail them, which I am sure you will not, then they in their resourcefulness will improvise and develop other avenues to solve the problem which they have before them. As an individual physician serve and take a really active part in your county organization. It is the county units that actually do the job of public education.

As physicians it is your responsibility to ask the program committees of the organization of which you are members to devote at least one program each year to cancer. Urge and sell them to take cancer as the health project of the organization.

Speak to your school authorities and urge them to include the school education program of the American Cancer Society in their schools. You have a remarkable start, an outstanding start in Arkansas in this direction, it needs your further stimulation in your own communities. It may well be that it is in your community that they have not instituted the program. Have ever before you that cancer is a problem two ways to the high school student. First, cancer is the fourth cause of death in the age group in which they themselves fall—second, it pre-

pare them for that period in their life when it is either the first or the second cause of death. Take it on yourself to ask your school authorities if they are participating in the school education program of the Field Army of the Arkansas Division of the American Cancer Society.

How many of you now have cancer literature on your waiting room table. How many of you know that that literature is available to you without cost by simply asking for it. How many of you have ever enclosed cancer literature in your monthly statements? You should! It is part of your role as individual physicians to cope with the second cause of death in the United States.

Most of you, if not all of you, have probably been asked to talk on cancer before some group or organization in your community. If you have been asked but declined, remember the next time the request is made that the state of Arkansas has bestowed upon you the privilege of practicing medicine, that with that privilege you have also accepted responsibility for the people in your community as well as your individual patients.

The most important role of the individual physician in cancer education of the public is to talk to your patients about cancer in your day by day practice. It is only through an alertness, through a knowledge and through the assurance that you can give your patients that they will come to look upon cancer simply as another disease that can and is being treated just as any other disease, by the skill, training and knowledge that is today at the command of the family physician and his specialist consultants.

It is for the profession in Arkansas and in the several states to exercise that guidance, that leadership that they alone are best able to exert to the end that the best interest of the public is served. It is within their grasp and it is even their rightful privilege to be certain that the policies evolved in Arkansas are such as to preserve and serve the best interests of the cancer patient. I trust and implore you as individual doctors, your House of Delegates and your Council to lend every assistance to the end that the Field Army of the American Cancer Society in Arkansas shall never lack for forceful, intelligent, aggressive and effective medical leadership and guidance. The opportunity is yours, and my acquaintanceship, limited as it has been in Arkansas, gives me assurance that you as a profession will never fall short of this, your responsibility and your opportunity.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart,
Arkansas Medical Society
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THE SURGICAL TREATMENT OF PATENT DUCTUS ARTERIOSUS

Over four years have elapsed since Gross published his excellent review of this subject in "Modern Concepts of Cardiovascular Disease." In the intervening period many contributions have been made on this subject and it seems worth while to summarize the additions that have been made to our knowledge.

Mechanical Effects of Patent Ductus Arteriosus

Patency of the ductus arteriosus, a condition encountered twice as frequently among females as males, is an arteriovenous aneurysm and some of its effects on the cardiac physiology are the same as those imposed by peripheral arteriovenous aneurysm. Blood flows through the patent ductus from the aorta to the pulmonary artery so that cyanosis is not present in uncomplicated cases. Forty to seventy-five per cent of the blood pumped out by the left ventricle into the aorta passes back through the short circuit into the pulmonary artery. In cases of this type the left ventricle has been found to pump from two to four times as much blood as the right ventricle in the same length of time. The pulmonary arterial pressure rises and the peripheral diastolic blood pressure falls; these changes account in part for the increased pulse pressure so characteristic of the patent ductus arteriosus. It has been estimated that cardiac efficiency is impaired 40 to 75 per cent by this arteriovenous shunt.

Essential Diagnostic Signs of Patent Ductus Arteriosus

There are two minimal requirements for making the diagnosis of patent ductus arteriosus; the first is a continuous murmur over the pulmonic region and the second is roentgenographic evidence of enlargement of the pulmonary conus. The latter sign may be lacking occasionally. This machinery-like murmur has been well described but it is essential that it be heard in diastole as well as in systole. A stethocardiogram taken over the pulmonary artery is useful in establishing the continuous character of the murmur. It may be accentuated just before, during or after

the second sound. A thrill may be felt at the point of greatest intensity of the murmur in about 75 to 80 per cent of cases. The thrill cannot be excluded unless palpation is carried out on deep inspiration with the patient leaning forward. Roentgenologic signs of uncompensated patency of the ductus arteriosus include enlargement of the left ventricle, increased pulsation of the left ventricle and pulmonary artery, pulmonary congestion and evidence of dilatation of the left auricle.

Effects of Patent Ductus Arteriosus on Blood Pressure and the Electrocardiogram

The blood pressure in cases of patent ductus arteriosus reveals an increased pulse pressure, the average in one series being 59 mm. of mercury (normal 30 to 45 mm. of mercury).²⁸ The pulse pressure in the legs generally is higher than that in the arms. Since patency of the ductus arteriosus produces both right and left ventricular strain and since both sides of the heart commonly are hypertrophied, the electrocardiogram reveals no axis deviation or only slight deviation. Marked right axis deviation of the electrocardiogram suggests other congenital defects, such as a large defect of the interauricular septum or the tetralogy of Fallot.

Associated Congenital Cardiac Defects in Relation to Age

Patency of the ductus arteriosus more frequently than not is complicated by other congenital cardiac defects in infancy. However, few of the patients who have these complications survive beyond three years so that in adult life the chances are good that the patent ductus is not complicated by other defects.

Fate of Patients With Patent Ductus Arteriosus

Before the indications for surgery are considered, it is well to consider the fate of patients with patent ductus arteriosus. Bullock, Jones and Dolley studies the life expectancy in 76 cases. No patients less than three years of age were considered. By 14 years of age, 14 per cent of the patients had died from the heart lesion, by 30 years of age 50 per cent were dead from the same cause and by 40 years of age the heart lesion had accounted for the death of 71 per cent of the group. The average age at death in another series of 14 men was 38.9 years; that of 46 women was 35.5 years. The authors of the second report estimated that this lesion reduced the life expectancy of the males about 23 years and that of the females about 28 years. In this series subacute bacterial

endocarditis accounted for 41.7 per cent of deaths and congestive heart failure for 28.3 per cent.

Indications for Operation

Indications usually given for surgical closure of the patent ductus arteriosus are (1) stunted growth, (2) uncompensated patent ductus arteriosus (indicated by lowered diastolic pressure, high pulse pressure and collapsing pulse) with an enlarging heart or symptoms of increasing dyspnea or both, and (3) the presence of subacute bacterial endocarditis. Most observers comment that slimness and underweight are evidence of retarded physical development. We, however, have been little impressed with retarded physical development in our cases nor did Shapiro and Keys find it in theirs. It has not constituted an indication for surgical treatment in any of our cases. Certainly either uncompensated patent ductus arteriosus or the presence of subacute bacterial endocarditis is an indication for ligation of the ductus.

Differences of opinion arise about the indications for surgery in the compensated cases, that is, in cases in which diastolic pressure is normal or only slightly reduced and there is little or no cardiac hypertrophy and no peripheral signs of regurgitation. The earlier view in such cases has been that each case should be considered on its merits and that the patient should be observed for developments indicating a need for operation. Rarely it happens that a murmur and other typical signs of patency of the ductus arteriosus disappear. Since subacute bacterial endocarditis is seldom encountered before the patient is six years of age, operation may be deferred at least that long if the child is developing normally and if signs of uncompensated cardiac disease do not occur. However, if one reflects on the statistics cited previously, it is not easy to reach a decision that surgical closure in cases of compensated patent ductus arteriosus is not indicated and, especially so, when skilled surgeons can anticipate a mortality of about five per cent in cases in which there is no infection.

Ligation of the Patent Ductus Arteriosus

The first successful ligation of the patent ductus arteriosus was reported by Gross and Hubbard in 1939. In 1943 Shapiro and Keys could collect 107 cases without complications in which the operations were performed by 25 surgical teams with nine deaths, a mortality rate of about 8.5 per cent. Six of these patients

died from rupture of the ductus at operation, two died from subacute bacterial endocarditis which developed after the operation and one from mediastinitis. It may be assumed that in the instances in which the ductus is closed, heart failure from patency of the ductus need not be anticipated unless recanalization of the ductus occurs. It seems unlikely that the tendency to the development of subacute bacterial endocarditis is retained in these cases after operation but time will be required to settle that point. Touroff and Vesell were the first to report successful ligation and apparent cure of the patent ductus arteriosus in cases of subacute bacterial endocarditis (endarteritis). Shapiro and Keys reviewed the results of ligation of the patent ductus arteriosus in 33 cases of subacute bacterial endocarditis. The operation apparently was successful in 20 cases although the patients have not been followed sufficiently long to permit the formation of definite conclusions. In eight instances the fever persisted in spite of the ligation of the ductus. Five patients died at operation as the result of hemorrhage. It is apparent that ligation of the ductus which is the site of subacute bacterial endarteritis offers the best prospect to date of achieving a cure of subacute bacterial endocarditis.

One of us (S.W.H.) has operated on 10 patients for patent ductus arteriosus. The indications for these operations were minor episodes suggesting impending cardiac insufficiency in four cases; congestive heart failure prior to admission in three cases and subacute bacterial endocarditis (endarteritis) in three cases. Death occurred from uncontrollable hemorrhage at operation in one case of subacute bacterial endocarditis. One patient who had subacute bacterial endocarditis is well 20 months after operation and one remained well for six and a half months after operation at which time death occurred from rupture of an aneurysm. As has been emphasized by Touroff, operation should be performed promptly without awaiting attempts to sterilize the blood stream once the diagnosis of subacute bacterial endarteritis in association with patent ductus arteriosus is made. It is remarkable that blood cultures obtained immediately after closure of the patent ductus arteriosus in two of our cases of subacute bacterial endocarditis were negative and remained so whereas before operation cultures were positive in both cases.

The Operative Procedure

In the first two operations performed by one of us (S.W.H.) the anterior approach advocated by Gross and Hubbard was employed. In the last eight cases, the ductus was approached through the posterolateral wall of the thorax. The incision is made around the border of the left scapula and the posterior two-thirds of the fourth rib is resected. Additional exposure can be obtained by resecting a small segment from the angle of the adjacent ribs. The pleural cavity is entered through the posterior periosteum of the fourth rib. Rib retractors are placed in the wound and the upper lobe of the left lung is retracted. In this way adequate exposure of the pulmonary artery and aorta can be obtained.

The region of the ductus arteriosus is then explored. Patency usually can be determined definitely. By palpating the pulmonary artery which is enlarged, a definite thrill can be felt to extend toward the heart. This thrill also can be felt in the aorta. By making gentle pressure in the region between the left phrenic nerve and the left vagus nerve, the patent ductus arteriosus can be compressed and the thrill reduced or stopped entirely as the ductus usually is located between these two nerves. An incision then is made in the pleura over the aorta, between the vagus and phrenic nerves and the dissection is carried toward the pulmonary artery. The ductus is located just anterior to the left recurrent laryngeal nerve as it swings around the arch of the aorta. The anterior portion of the ductus is first seen after separating the mediastinal fascial planes and lymphatic vessels just between the aorta and the dilated pulmonary conus. Careful blunt dissection is carried out until the entire ductus is separated from the surrounding structures. Great care should be exerted posteriorly as in many instances the ductus is very thin. The ductus is then ligated with multiple silk ligatures. If the ductus has been ligated securely and there is no other pulmonary lesion, the thrill which was present before the ligation will disappear entirely. Whenever the mediastinal lymph nodes are enlarged, as always happens in cases of subacute bacterial endarteritis, and whenever dilatation of the smaller vessels in the mediastinum surrounding the ductus is associated, these smaller vessels are ligated carefully with catgut. Before the wound is closed, 5 gm. of sulfathiazole is placed in the pleural cavity. The mediastinal pleura is loosely closed with interrupted catgut sutures. The lung is inflated by positive pressure

and the incised pleura and chest wall are completely closed without drainage.

Comment on the posterolateral approach: The posterolateral approach employed in eight of our cases has definite advantages over the anterior approach as the exposure is more adequate. It is particularly advantageous if the pleura is adherent, for the apical portion can be separated from the lung which is then retracted and the ductus exposed. It is advantageous in cases in which subacute bacterial endocarditis and an infected ductus are present because in these cases there are usually many adhesions and marked enlargement of the lymph nodes surrounding the ductus. It has the advantage of a bilateral approach to the ductus which permits the surgeon to cope with complications which may interfere with the operative procedure. If hemorrhage should occur during the separation of the ductus from the surrounding structures, the surgeon is in a position to control it by compression with the fingers until the ductus can be ligated. This procedure was found necessary in two of our cases, in one of which the patient did not survive. This approach proved to be most satisfactory and essential in three cases of this series in which the left lung had been affected previously by a disease process. One of these patients had had empyema in the left side of the thorax following pneumonia, one had had pneumonia in the left lung and the other multiple infarcts in the left lung. In all three of these patients the left lung was firmly adherent to the parietal pleura necessitating complete dissection of the upper lobe of the left lung from the parietal pleura before the region of the great vessels could be seen.

This approach has the disadvantage of producing a moderate degree of temporary dis-

comfort in the use of the arm because of the necessity of cutting the muscles posteriorly in order to elevate the scapula. This single disadvantage, however, is of minor importance in comparison with the many advantages that this type of exposure has in the important technical problems which are often encountered inside the pleural cavity in treatment of the patent ductus arteriosus.

Arlie R. Barnes, M. D.

Stuart W. Harrington, M. D.,

Rochester, Minnesota.

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

AMA CENTENNIAL

The American Medical Association is going to celebrate its centennial in Atlantic City, June 9-13, 1947. Elaborate plans are being made for this celebration.

Only fellows and invited guests are eligible to attend. Membership in your state society is the primary qualification for fellowship in the A.M.A. Fellowship dues and subscription to The Journal A. M. A. are both included in one annual payment of \$8, which is the cost of The Journal to subscribers who are not fellows.

If you are not a fellow and plan to attend the Atlantic City session, which will be a milestone in medical history, you can save yourself considerable time and confusion when registering, if you will write now to the American Medical Association, 535 North Dearborn Street, Chicago 10, and ask if you are eligible to become a fellow.

Save the Easy Way . . .

Buy Your Bonds Through Payroll Savings

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

PULMONARY tuberculosis is a disease of uncertainty, with periods of quiescence and of reactivation. While many individuals recover spontaneously, in others the disease may progress notwithstanding all manner of treatment. For many, recovery depends upon the knowledge and the facilities for properly adjusting the mode of life to the disease. This adjustment is best carried out under the watchful eye of the physician.

THE IMPORTANCE OF POSTSANATORIUM CARE OF THE TUBERCULOUS

One of the great dangers to the individual with tuberculosis is that the disease may advance considerably without the patient's being aware of it. For this reason it is essential that the pulmonary condition be observed periodically by means of properly taken X-ray films.

The education of the patient is one of the principal aims of sanatorium care. The knowledge of the disease, the reasons for making adjustments in living, working and in environment, the patient's part in recovery and its maintenance; all furnish the background for his care after leaving the sanatorium. Even after discharge, his disease is still a serious potential danger to himself and to his associates.

Early in sanatorium treatment, if it is possible, it must be determined to what extent the patient will be able to return to his former work and life. If he cannot assume the so-called "normal life," efforts should be made to fit him for work suitable to his condition. Recreational therapy, occupational therapy, rehabilitation and the establishment of work tolerance should go hand in hand with the general treatment. Ideally the sanatorium should conduct its physically able patients through all the stages of rehabilitation until a work tolerance of eight hours has been reached. Others should be brought to their maximum work tolerance and be put on part-time work.

The two most satisfactory guides for determining the patient's condition are the X-ray film and the patient's temperature. Of these, serial X-ray films tell us more completely the dynamic state of the disease. When the X-ray films show marked changes for better or worse,

the disease is active, retrogressively or progressively, and rest in bed is indicated. Such is the case, too, when elevation of temperature not due to other causes is present or there is loss of weight, loss of appetite, or fatigue. To determine the status of the disease, the patient should take his temperature and pulse at about 4 p. m. and 8 p. m., and keep a record of it as well as of any toxic symptoms. At least once in six weeks he should have an X-ray examination of his chest. In old chronic disease the interval may be lengthened. With such a record the physician is in a position to judge the reaction of the patient to his disease and to modify treatment as needed.

Each patient is an individual and requires individual treatment. As a general rule, after the X-ray films have revealed a practically stationary lesion for several months, and there are no toxic symptoms, the patient may become partly ambulatory. Attention should be paid to the state of his nutrition, and he should avoid overheated stuffy rooms at all times.

Life in a sanatorium is much less exacting than life at home. To have attained an arrest of the disease in the sanatorium does not mean that the arrest will continue under adverse environmental and nutritional conditions outside.

Essentially, tuberculosis is a chronic disease; in such a disease education in how to live with it and remain well is of extreme importance. Continuous readjustments should be made by a physician who knows the picture as a whole. To be successful, the treatment of tuberculosis must go on long after discharge from the sanatorium.

What the sanatorium does or can do for a patient is briefly outlined because postsanatorium care and complete rehabilitation are but an extension of the sanatorium activities. Vigilance should be the keynote of this extended period.

vigilance on the part of the patient and on the part of his physician.

One can give no fixed procedure for subsequent observations of the discharged sanatorium patient. For those whose disease is arrested an X-ray examination every six months for two years probably would be sufficient, providing the patient feels well and has no symptoms. Those discharged as apparently arrested probably should have X-ray examinations every three months for one year and after that at longer intervals if all goes well. At the time the X-ray examination is made there should be a consultation with the tuberculosis physician during which advisable adjustments in the routine of the patient may be recommended.

For many years the Trudeau Sanatorium has made an effort to find out what happens to its discharged patients. Once each year, in the anniversary month of his discharge, the patient is sent a blank to fill in. In addition to a request for notice of change in address the patient is asked about his health in detail, his work and his earning capacity. This inquiry reminds the patient of the importance of a check-up of his condition. Replies are received from about 90 per cent of former patients.

In this institution the sanatorium staff is always glad to advise the patient when requested and they welcome opportunities to cooperate with outside physicians. The staff gladly examines the patient's chest films at the request of his physician and he is told that he may return to the sanatorium at any time for a check-up. Such a check-up affords an opportunity for the attending physician to utilize the specialized services of the sanatorium staff which is more important if he is not specially trained in tuberculosis. It is the essence of teamwork that the physician attending the patient be kept fully informed about the findings and recommendations of the sanatorium staff.

The treatment of tuberculosis should be carried on over many years, even if there has been an apparent restoration of health. A knowledge of tuberculosis and its many and varied behaviors is needed by him who would carry out such treatment with skill. It must be recognized that in all cases the X-ray gives the most accurate estimate of what is going on in the lungs. The sanatorium lays the preliminary groundwork in education and provides satisfactory environmental and nutritional standards, but the treatment must go on long after the patient has been discharged. Prevention of relapse is of greater importance than treatment after relapse has occurred.

AGREEMENT BETWEEN THE VETERANS ADMINISTRATION AND ARKANSAS MEDICAL SOCIETY

For the Medical Care of Veterans Authorized by Law

1. It is the purpose of the Arkansas Medical Society to collaborate with the Veterans Administration in a manner, which will provide the best possible medical care for veterans residing in the State of Arkansas.

2. The Arkansas Medical Society will request all of its members to participate in a statewide program whereby physicians in private practice will render medical services (examinations, treatments and counsel) in such cases as may be authorized by the Veterans Administration.

3. The Arkansas Medical Society will submit to the Veterans Administration a list of members who desire to provide services for eligible veterans in home communities of such veterans.

4. The physicians so listed may be appointed as fee-designated physicians of the Veterans Administration.

5. Such list may be augmented from time to time as additional physicians indicate a desire to participate in the program.

6. By notice in writing, a physician may at any time request that his name shall be removed from the list of fee-designated physicians.

7. Fees for medical services in authorized cases shall be paid by the Veterans Administration to the physician rendering the service in accordance with the fee schedule, which is attached hereto and made a part of this agreement. The Arkansas Medical Society warrants that the rates charged herein are not in excess of the rates charged other persons, who are not Veterans Administration beneficiaries, for the same service. It is understood that unusually involved cases and services not scheduled will be subject to review by the Arkansas Medical Society and for recommendation to the Veterans Administration as to the appropriate fee.

8. The Arkansas Medical Society will assist the Veterans Administration in establishing for examinations and treatments a list of competent specialists who meet the qualifications for specialists of the Veterans Administration.

9. Lists submitted by the Arkansas Medical Society will be broken down by counties or districts in order that the veteran for whom services are authorized may select a physician practicing in his home community.

10. The Veterans Administration will handle

administrative and clerical details in connection with the authorization of examinations or treatments and the maintenance of records; and will arrange for transportation of the veteran if necessary.

11. Upon request, the Veterans Administration will furnish to an eligible veteran a list of fee-designated physicians in the county or district in which the veteran is located in order that he may select his own physician for the services required. As soon as the veteran reports to the physician for such services the physician will notify the designated office of the Veterans Administration and proper authorization for the necessary services will then be supplied to him. However, the Veterans Administration reserves the right to designate the physician who is to perform examination or examinations for rating purposes.

12. The Veterans Administration will review reports of examinations and services to determine their adequacy. No fees will be paid by the Veterans Administration for reports, which are not acceptable to the Veterans Administration nor for services rendered in unauthorized cases.

13. The Arkansas Medical Society will establish one or more boards of review composed of physicians. It shall be the duty of such board to review reports, which are deemed by the Veterans Administration to be inadequate, or which do not meet the requirements of the Veterans Administration; to recommend, at its discretion, the disqualification of any physician from further work with the Veterans Administration whose work is found by the board to be incomplete or unsatisfactory; to advise and assist the Veterans Administration on other matters within the scope of this program.

14. The Arkansas Medical Society does not propose to make any charge for any service rendered to the Veterans Administration under this agreement.

15. The parties hereto agree that the effective date of this agreement shall be October 1, 1946.

Signed on behalf of the Arkansas Medical Society: H. King Wade, President. (October 1, 1946).

* Signed on behalf of the Veterans Administration by: R. C. Kidd, Director, Supply Service.

Witness: Thomas McGrain Lowry, M. D., Chief, Out-Patient Division, Branch Office No. 9.

* Accepted with the understanding that telegram dated September 30, 1946, is to be made a part of the contract.

Fee Schedule for Out-Patient Service
(Part One)

Submitted to Veterans Administration by Arkansas Medical Society.

Clinical Laboratory Tests

1—Total and differential blood count including colorimetric hemoglobin estimation.....	\$ 5.00
2—Blood smear for malaria.....	2.00
3—Urinalysis, routine chemical and microscopic....	2.00
4—Blood Wasserman (complement-fixation).....	5.00
5—Blood Kahn (precipitation).....	2.00
6—Spinal fluid Wasserman (complement-fixation).....	5.00
7—Spinal fluid Kahn (precipitation).....	3.00
8—Chemical examination of blood complete, including creatinin, urea, dextrose, nitrogen (or NPN) and uric acid	15.00
9—Sputum examination for tuberculosis (plain smear).....	3.00
10—Determination of basal metabolic rate.....	5.00

Services by Non-Specialists

11—Examination to determine need of hospitalization.....	3.00
12—Complete general routine physical examination.....	7.50

If such examination is done at the veteran's home, an additional fee of \$3.00 is to be allowed for the home call if the veteran lives within the city limits. If the veteran lives outside the city limits a mileage allowance of 75c per mile one way or a fee of \$3.00 for the home call will be allowed at the choice of the physician.

13—Office visit with treatment.....	3.00
14—Day visit to home or hospital (within city limits)	3.00
15—Night visit to home or hospital (9 p. m. to 7 a. m.) (within city limits).....	5.00
16—Charge for mileage one way for day or night visit outside city limits in addition to appropriate fee.....	0.75

Examinations by Specialists

17—Examination by general surgeon to determine diagnosis, including consultation report.....	10.00
18—Orthopedic or plastic surgeon.....	7.50
19—Physical examination of heart.....	10.00
20—Complete examination of heart, including electrocardiogram.....	15.00
21—Electrocardiogram with interpretation.....	10.00
22—Physical examination of lungs.....	10.00
23—X-ray of lungs, flat plate.....	10.00
24—X-ray of lungs, stereoscopic.....	15.00
25—Gastrointestinal, including barium meal, X-ray and fluoroscopy.....	35.00

26—Dermatological.....	7.00
27—Allergy investigation (protein sensitization tests) including complete examination and report: For each 25 tests.....	35.00
28—Genitourinary examination without cystoscopy.....	5.00
29—Gynecological.....	10.00
30—Proctological, including proctoscopy.....	10.00
31—Psychiatric examination, complete.....	15.00
32—Neurological examination, complete.....	10.00
33—Examination of ears, nose and throat.....	5.00
34—Special ear examination, including audiometric test with chart.....	10.00
35—Special ear examination, including caloric or Barany test with report.....	10.00
36—Examination of eyes (to include either a copy of the prescription ordered or the retinoscopic correction of the refractive error, the fundus and field findings—the latter by chart in all cases of optic atrophy).....	12.50
37—Examination of eyes with refraction, if mydriatic is used (to include either a copy of the prescription ordered or the retinoscopic correction of the refractive error, the fundus and field findings—the latter by chart in all cases of optic atrophy).....	15.00
38—Examination by internist to determine diagnosis, including consultation report.....	10.00
Treatment by Specialists	
39—Dermatological: First visit, including examination and diagnosis.....	5.00
40—Dermatological: Each subsequent visit.....	2.00
41—Ear, nose and throat: First visit, including examination and diagnosis.....	5.00
42—Ear, nose and throat: Each subsequent visit.....	2.00
43—Ophthalmological: First visit, including examination and diagnosis.....	5.00
44—Ophthalmological: Each subsequent visit.....	2.00
45—Psychiatric treatment (psycho-therapeutic conference), session of at least 50 minutes.....	15.00
46—Psychiatric treatment (psycho-therapeutic conference), session of 25 minutes or less.....	7.50
47—Neurological treatment—(Treatment is understood to be the usual follow-up care and observation after diagnosis has been made at original neurological examination).....	5.00
48—Intravenous sodium amytal procedure, diagnostic or therapeutic.....	10.00

NOTE: Pending completion of the agreement between the Arkansas Medical Society and the Veterans Administration on other items, the fees of the Kansas Medical Society, as shown in the published fee schedule of that Society, will be accepted by both parties to this agreement.

**Standards for Neuropsychiatrists
To Be Designed for Therapy**

Psychiatrists:

Qualifications:

- a. Certified in Psychiatry by American Board of Psychiatry and Neurology, or
- b. Possession of one of following ranks in an accredited Medical School.
 - 1. Any professorial rank in Psychiatry.
 - 2. Associate in Psychiatry.
- c. Experience:
 - 1. At least four years of two half days a week in an accredited Mental Hygiene Clinic or similar institution in which modern therapeutic principles and techniques were practiced, or

- 2. Certification by the American Psychoanalytical Association and four years' practice of Psychiatry using this, or other, forms of modern psychiatric treatment, or
- 3. Two years' certified training and experience in the Armed Forces or in any other accredited institution in which intensive individual therapy was practiced and taught, with two additional years of similar practice, either private or institutional.

Neurologists:

Qualifications:

- a. Certification in Neurology by American Board of Psychiatry and Neurology.

**SPECIAL SESSION
HOUSE OF DELEGATES
JANUARY 26, 1947**

In accordance with provisions of the By-Laws, a special session of the House of Delegates has been called by President Wade to convene at the Marion Hotel, Little Rock, Sunday, January 26th, 1947, at 10:30 a. m. The meeting is called to consider the final report of the Committee on Medical Service and Public Relations which will submit its recommendations for a plan of prepayment medical, surgical and hospital care for the state of Arkansas. Copies of the full report are being mailed to each member of the Society in order that full study may be given to the recommendations of the committee prior to the session. County society secretaries have been furnished with credentials for certification of delegates as is customary for the regular annual sessions. The importance of this meeting cannot be overemphasized and it is urged that each county medical society assure itself of representation at the session. Members of the Society, whether delegates or not, are invited to attend.

DEADLINE

May 1st, 1947, is the deadline for entering the \$34,000 prize art contest on the special subject of "Courage and Devotion Beyond the Call of Duty" (on the part of physicians in war and in peace). This contest is open to all M. D.'s in the Western Hemisphere. The exhibition will take place in conjunction with the American Medical Association Centennial Session at Atlantic City, June 9-13, 1947. For complete information, write or wire now to Francis H. Redewill, M. D., Secretary, American Physicians Art Association, Flood Building, San Francisco, California, or to the sponsor, Mead Johnson & Company, Evansville 21, Indiana, U. S. A.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

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W. R. BROOKSHER, M. D., Editor
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also marked copies of newspapers containing matter of interest
to the membership.

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*Deceased.

EDITORIAL

VETERANS ADMINISTRATION MEDICAL CARE PROGRAM

The attention of all members, and particularly those who have expressed a desire to participate in the program, is directed to the provisions of the approved contract of the Society with the Veterans Administration covering examinations to determine compensability and for certain treatment of service-connected disabilities of veterans.

The special committee of the Society is presently engaged in the drafting of a comprehensive fee schedule for other procedures incident to a wider application of treatment for service-connected disabilities. This will be presented to the Veterans Administration for approval. In the meantime, such medical and surgical procedures as may be authorized by the Veterans Administration, will be paid under the fee schedule as in effect in the state of Kansas.

Emphasis is placed upon the fact that payment will be made only for such treatment and examinations as may be authorized by the Veterans Administration. Such authorizations are to be obtained from the Medical Officer, Veterans Administration, Federal Building, Lit-

tle Rock, and may be secured by letter, telegram or telephone communication. Applications for authority to treat veterans will be granted only in the case of service-connected disabilities. The Veterans Administration will issue authorities for the examination of veterans to determine compensation as heretofore. The examining physician is urged to make a thorough physical examination and to fully and accurately record his findings, keeping in mind that a full description of the disability present is essential for proper evaluation of the compensability of the disability.

A special committee has been appointed to coordinate the affairs of the Society as related to this program, consisting of Daniel H. Autry, Chairman, Little Rock; Henry G. Hollenberg, Little Rock; Harvey C. Shipp, Little Rock; Fred H. Krock, Ft. Smith, and John H. Wilson, Magnolia. This committee will review examinations returned as deficient by the Veterans Administration and endeavor to secure adequate correction in detail of such examinations. This committee will act in all matters affecting the operation of the contract between the Society and the Veterans Administration.

The Veterans Administration will shortly supply each physician who has signified his desire to participate in the program with its handbook on examinations and other information pertinent to the relationship of physicians with the Veterans Administration.

Physicians who have not previously completed the form indicating their desire to participate in the program may secure a form on application to the state secretary.

EDITORIAL COMMENT

REFRESHER COURSES IN PEDIATRICS AND OBSTETRICS

State Board of Health Offers Scholarships for Week's Courses at University of Kansas

The Division of Maternal and Child Health, Arkansas State Board of Health, offers a limited number of scholarships for two refresher courses, one in Pediatrics and Public Health February 24-28, 1947, and one in Obstetrics and Gynecology April 21-25, 1947, at the University of Kansas Hospital in Kansas City. Guest faculty for the Pediatrics course will include Dr. Daniel C. Darrow of Yale and Dr. Milton J. Senn of Cornell.

The State Board of Health will pay the tuition, travel, either railroad fare and Pullman or five cents per mile for automobile travel, and actual

expenses for room and meals if kept to a reasonable figure. Apply to Dr. Frances C. Rothert, Director, Division of Maternal and Child Health, State Board of Health, Little Rock, Arkansas.

RANDOM THOUGHTS OF THE SECRETARY

November 23rd. In perfect weather watching the Irish from Notre Dame battle the Tulane Green Wave with the maximum of efficiency and the minimum of mercy, the most methodical eleven we have ever seen.

November 24th. Attempting to renew acquaintance with New Orleans, somewhat difficult after the lapse of 19 years. . . . Hutchinson Memorial where we sweated out the junior and senior medical years having given away to the ubiquitous bulge of filling station advance . . . the familiar store fronts of Canal Street far from familiar . . . the Vieux Carre, as it has for one hundred years, most the same, and pompano Ponchtrain the delectable entree of yore but pomme de terre soufflé and French pastry are war time casualties . . . yet the city holds, as none other, enthusiasm, Latin gayety and the carefree spirit which fully entitles it to the title, "America's Most Interesting City."

November 25th. Sam Thompson is gone—the loss is great and real—none has given more of his strength and courage for the advancement of medicine in Arkansas—he loved us all and we loved him.

November 28th. In a country struggling to find the peace, with internal turmoil and the demands of power-drunk leaders bringing fear to the hearts of all, may we today seek out faith and strength to keep America a true democracy.

December 5th. En route to St. Louis tonight with Fount Richardson bringing us current on the medical situation in Fayetteville and Washington County, together with breezy comments on life in general.

December 6th. Arriving in bustling Chicago this afternoon and afforded the opportunity, after the long war period, of having three room clerks awaiting our pleasure and apparently glad to have us sign in, that moment we have promised us so long. About the Loop district and to dinner with the radiologists tonight for discussion of problems.

December 7th. Busying ourselves to attend both the secretaries conference and the radiological sessions and tonight dining with the state secretaries while Oklahoma and Michigan modestly acclaim their good points thinly-veiling suggestion that the other 46 do likewise and they may be quite right, at that.

December 12th. Weather denies us attendance at a final committee session working on plans for Veterans Administration care in the state and telephonic conversation with Councilor Gay brings the admonition from Fay Jones to go on home and go to sleep.

December 15th. Improved weather permits flying to Little Rock today where the Council gathers in session to discuss many matters and Euclid Smith is back where he started from prewar as chairman of the council.

OBITUARY

JOHN ROLAND LYNN, Hazen, died at his home December 2. A graduate of Memphis Hospital Medical College in 1887, he had served in the various offices of the Prairie County Medical Society, was a fellow of the American Medical Association, and was elected to honorary membership in the Arkansas Medical Society

at the 1945 annual session. He was an elder in the First Christian church, past master of the Hazen Masonic lodge, and a member of the Scottish Rite Masons, the Sahara Temple, Shrine, the Eastern Star and the Woodmen of the World. Surviving relatives are his wife and a daughter.



SAMUEL ALEXANDER THOMPSON, 57 years old, died at his home in Camden November 24th after an illness of several months. A graduate of the University of Arkansas School of Medicine in 1914, he took postgraduate work at Tulane University and had practiced at Mt. Holly, Buena Vista and Stephens, before he located at Camden. He was a member and steward of the First Methodist church, a member of the Executive Board of the Arkansas Association for the Crippled, a member of the National Advisory Committee for the Children's Bureau, a member of the Kappa Alpha and Chi Zeta Chi fraternities, a member and past-president of the Camden Lions Club, a member of the Chamber of Commerce and of the Masonic bodies. He was a member and past-president of the Ouachita County Medical Society, a past-president of the Fifth Councilor District Medical Society and a fellow of the American Medical Association. He was elected councilor from the Fifth District at the 1943 annual session and had served as chairman of the council, a post he held at his death, since April 22, 1945. Surviving relatives are his wife, and a son, Dr. Samuel B. Thompson, of Boston, Massachusetts.

PERSONALS AND NEWS ITEMS

Born—On December 24th, a son, to Dr. and Mrs. Carl L. Wilson, Fort Smith.

A. C. Kolb, Little Rock, recently took special work in mental hygiene at Washington and New York.

On behalf of the Committee for Scientific Exhibits, for the coming meeting of the State Medical Society, any physician desiring to exhibit interesting materials is cordially invited to do so. All communication should be directed to the address below.

For the Committee,
Hunter A. Causey, M. D., Chairman,
608 National Building,
Pine Bluff, Arkansas.

Raymond T. Moore, Marshall, now on duty in Korea, has been promoted to captain.

D. W. Goldstein, Fort Smith, attended the Cleveland session of the American Academy of Dermatology and Syphilology during December.

At a meeting held December 15th, the Council elected John H. Wilson, Magnolia, to fill the unexpired term of the late S. A. Thompson as councilor from the Fifth District. Euclid M. Smith, Hot Springs National Park, was elected chairman, an office also held by Dr. Thompson.

L. J. Kosminsky, Texarkana, attended the sessions of the House of Delegates of the American Medical Association and the Federation of State Examining Boards in Chicago during December.

Robert Watson, Little Rock, attended the meeting of the Association for Research in Nervous and Mental Diseases at New York City during December.

P. W. Lutterloh has been elected a director of the Jonesboro Chamber of Commerce.

A. C. Kolb has been appointed chief of the mental hygiene clinic of the Veterans Administration Regional Office, Little Rock.

H. Clay Chenault, Little Rock, recently addressed the Hot Springs Kiwanis club on medical care in Arkansas.

In attendance at the sectional meeting of the

American College of Physicians in Memphis recently were: J. N. Compton, Fred W. Harris, W. B. Grayson, Jerome S. Levy and O. C. Melson, Little Rock; Euclid M. Smith, Hot Springs National Park; Chas. T. Chamberlain, Fort Smith, and H. T. Smith, McGehee.

George R. Steinkamp recently addressed the Little Rock Exchange Club on problems in the Middle East.

J. B. Jameson, Camden, has been reelected a trustee of Ouachita College.

G. L. Kimball, DeQueen, has been elected grand junior deacon, Grand Lodge, Free and Accepted Masons of Arkansas.

F. J. Scully, Hot Springs National Park, has been elected grand principal sojourner, Grand Chapter, Royal Arch Masons of Arkansas.

Paul Autry, Little Rock, and J. W. Burnett, Texarkana, have been elected trustees of Baptist State Hospital, Little Rock.

Carl A. Rosenbaum recently addressed the Little Rock Cooperative Club on "Cancer Control in Arkansas."

Byron Z. Binns, Lake Village, has been appointed part-time venereal disease clinician in Chicot County.

W. M. Woods has been elected surgeon of the Huntington post, American Legion.

Lawrence Drewery has been appointed part-time venereal disease clinician at Gurdon.

Among those in attendance at the American College of Surgeons meeting in Cleveland were: H. Fay H. Jones, Jos. F. Shuffield and Carl A. Rosenbaum, Little Rock; Martin C. Hawkins, Jr., Searcy, and A. F. Hoge, Fort Smith.

J. J. Monfort, Batesville, has returned to practice after recovery from injuries sustained in an automobile accident. During his absence, he attended meetings of the Oklahoma Clinical Society, the Dallas Clinical Society and the Western Surgical Association.

Jackson County Medical Society has elected the following officers: President, Jabez F. Jackson; secretary-treasurer, J. B. Ivy.

Doctor:

You Are Cordially Invited to Attend the

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Dr. Alexander T. Martin, Pediatrics, New York, N. Y.
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Programs will be mailed January 20th.

Write for one if you do not receive yours.

DR. A. F. COOPER, Secretary-Treasurer

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PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society was addressed December 4th by Harwell Wilson, Memphis, "Sympathectomy in the Treatment of Peripheral Vascular Disease," and Duanne Carr, Memphis, "Intrathoracic Neoplasms." Officers elected are: E. R. Barrett, Jonesboro, President; Paul T. Stroud, Jonesboro, Vice-president, and J. H. McCurry, Cash, Secretary-treasurer.

Sebastian County Medical Society has elected the following officers: President, Carl L. Wilson, Fort Smith; Vice-president, Ralph E. Crigler, Fort Smith; Secretary, J. K. Thompson, Fort Smith, and A. S. Koenig, Treasurer, Fort Smith.

Searcy County Medical Society has elected the following officers: President, E. G. Fendley, Leslie; Vice-president, W. T. Moore, Marshall; Secretary-treasurer, J. O. Leslie, Marshall; Delegate, H. J. Hall, Clinton, and Alternate, E. G. Fendley.

G. R. Siegel, Clarksville, and R. B. Robins, Camden, secretaries of the Johnson and Ouachita County Medical Societies, respectively, reported the first annual assessments of members to the state society.

The Bradley County Medical Society has elected the following officers: President, Rufus Martin; Vice-president, Merl T. Crow; Secretary-treasurer, W. J. Hunt; Delegate, Robert E. Grene, and Alternate, W. B. Reasons.

Benton County Medical Society has elected the following officers: President, C. S. Wilson, Siloam Springs; Vice-president, Neil Compton, Bentonville, and Secretary-treasurer, G. C. DeBolt, Rogers.

Jefferson County Medical Society has elected the following officers: President, R. D. Dickins; Vice-president, H. J. Morris, and Secretary-treasurer, C. W. Anderson.

Washington County Medical Society has elected the following officers: President, Fount Richardson; Vice-president, R. W. Miller, and Secretary-treasurer, J. W. Dorman.

The Ouachita County Medical Society met in regular monthly dinner session at the Ouachita Hotel in Camden December 5. The pro-

Independence County Medical Society has elected the following officers: President, J. J. Monfort; Vice-president, W. J. Katz, and Secretary-treasurer, Paul Gray.

Pulaski County Medical Society has elected the following officers: President, Ralph E. McLochlin; Vice-president, Henry G. Hollenberg; Secretary, E. J. Easley, and Treasurer, R. M. Blakely. The office has employed Mr. Gaston C. Fulmer as executive secretary.

Garland County Medical Society has elected the following officers: President, Euclid M. Smith; Vice-president, H. K. Wright, and Secretary-treasurer, W. A. Goodrum.

Mississippi County Medical Society has elected the following officers: President, J. E. Beasley; Vice-president, L. L. Hubener; Secretary-treasurer, T. F. Hudson, and Censor, C. M. Harwell.

The Pulaski County Medical Society was addressed December 2nd by H. Clay Chenault on the problems of the University of Arkansas School of Medicine and the University Hospital. E. J. Easley, Secretary.

Independence County Medical Society has elected the following officers: President, J. J. Monfort; Vice-president, W. J. Ketz; Secretary-treasurer, Paul Gray; Delegate, Rector Hooper, and Alternate, W. J. Ketz.

gram consisted of a "Symposium on Gallbladder Disease" given by Drs. Randolph Smith and Gilbert Dean, of Little Rock. The following new officers were elected: President, R. R. Robins; Vice-president, Perry Dalton; Secretary, R. B. Robins; Delegate, John P. McAlister; and Alternate, W. C. Magness.

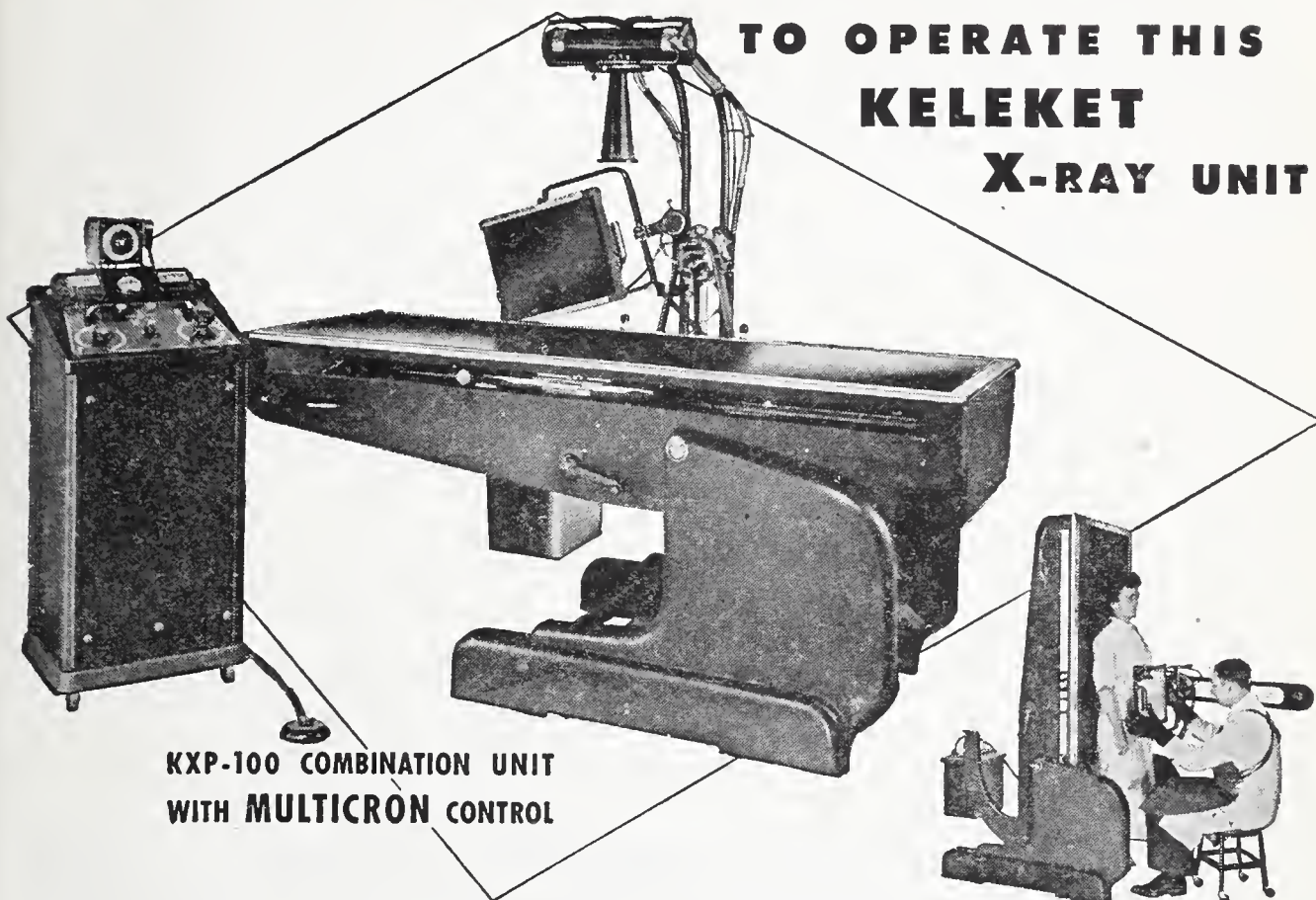
R. B. Robins, Secretary.

WOMEN'S AUXILIARY NEWS

The Auxiliary to the Pulaski County Medical Society held its annual Public Relations meeting with the Greater Little Rock Federation of Women's Clubs on November 26th. Thirty of the Federated Clubs were represented and the Auxiliary was in charge of the program for the afternoon. Mrs. Mason G. Lawson, president of the Auxiliary, acted as chairman and presented Mr. Gaston G. Fulmer, manager of the Physician's Business Bureau, who talked on "Compulsory Versus Voluntary Medicine." Mr. Fulmer was very well received especially in his con-

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trast of the physician-patient relationship under voluntary insurance plans and that of the proposed federal plan of compulsory taxation. The purpose of the meeting was an effort to bring the lay group of the Federation up to date on federal plans as regard medicine and was a followup on the program presented last year by Dr. Charles R. Henry who explained the bills that were at that time before the Congress. The Pulaski County Auxiliary feels that an educational program, such as this, is an aid to the public in understanding the problems that their physicians face.

The Woman's Auxiliary to the Washington County Medical Society met regularly through the summer months for dinner meetings on the first Tuesday night of the month.

On the last Thursday afternoon of the month members met and sewed for overseas relief.

At the October meeting the winter project was started and it is sewing for the City Hospital in Fayetteville.

The meetings are well attended and the programs interesting.

BOOK REVIEWS

Clinical Biochemistry: By Abraham Cantarow, M. D., Professor of Physiological Chemistry, Jefferson Medical College; formerly Associate Professor of Medicine, Jefferson Medical College, and Assistant Physician, Jefferson Hospital; and Max Trumper, Ph.D., Lt. Commander, H(S), USNR, Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md.; formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. Third edition, Revised. 647 pages with 29 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price \$6.50.

The authors state in their preface: "Modern advances in physiology and biochemistry have developed a need, not for another laboratory manual, but for a book designed to correlate established facts with problems encountered daily in internal medicine. The rapidity and magnitude of these developments have resulted in the growth of a highly specialized branch of laboratory medicine, namely, chemical pathology. The evolution of this specialty within a specialty has unfortunately tended to remove the clinician still further from a thorough understanding of those phases of internal medicine that require the assistance of the biochemical laboratory for their complete solution." This is such a text.

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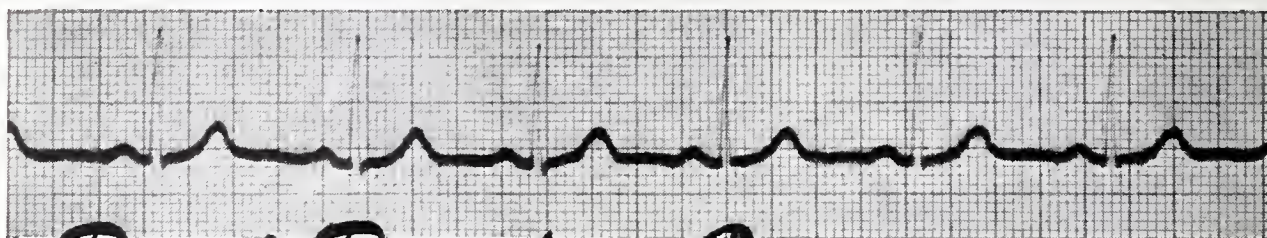
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No. 9

MANAGEMENT OF SURGICAL LESION OF RECTOSIGMOID *

LOUIS P. GOOD, M. D.
Texarkana

Introduction

The decision as to the proper management of surgical lesion of rectosigmoid will largely depend upon the general condition of the patient, the nature of the lesion, and the presence or absence of colonic obstruction.

Definition

The rectosigmoid is an imaginary line of junction of the rectum and sigmoid and is recognized anatomically by the reflection of the peritoneum away from the sigmoid. From a surgical standpoint it represents a small segment of bowel occupying 2 or 3 cm. proximal and distal to this line. Wangenstein states that it is that portion of the large bowel which is not less than 10 cm. nor more than 13 cm. as measured from the pectinate line on the proctoscope. It is a portion of the bowel arising embryologically from the hind gut, the chief function of which is a conduit for the fecal current. Inasmuch as the water has been absorbed before it reaches the left half of the colon, the fecal material is firm. Because the bowel is narrowest at the rectosigmoid, because the fecal current is firm or solid, and because carcinoma at this site is usually annular in type, obstruction is a frequent and serious complication. The blood supply is obtained through the sigmoidal branches of the inferior mesenteric and through the superior hemorrhoidal arteries. There are anastomotic branches with the middle hemorrhoidal. The lymph channels accompany the blood vessels.

Diagnosis

History: Patients who have bowel irregularity, increasing constipation, obstipation, signs of partial obstruction, anemia, and other symptoms of general illness should have a thorough investigation made of the colon. Melena is unusual as a result of carcinoma of the rectosigmoid.

Physical Findings: The examination should begin with a digital examination (also vaginal in

women). Meyer states that a large majority of the lesions of the rectosigmoid may be felt on digital examination. The finger should be inserted as high as possible with the palm posterior and then turned anteriorly. In this fashion a lesion much higher may be felt than if the finger is inserted with the palm anteriorly.

Proctoscopic Examinations: Visual inspection of the lesion may be carried out and the distance of the lesion from the pectinate line may be measured. At the same time a biopsy specimen may be taken and studied by the pathologist. This is very important, especially in those cases in whom a permanent colostomy might be necessary.

X-Ray Studies should be done in the following order:

1. Barium enema. A defect in the rectosigmoid may not be visible with a barium enema unless there is an accompanying obstruction.
2. An air contrast study should be done to rule out the presence of multiple polyps in the colon.
3. Barium meal studies are rarely indicated for lesions of the rectosigmoid and should not be done if there is a suspicion even of obstructive symptoms.

Character of Lesion: The lesion may be benign such as tuberculosis, ulcers, actinomycosis, diverticulosis, or polyps, or it may be malignant. The remainder of this paper will deal only with the malignant lesion.

Having determined the nature of the growth, an appraisal of the general condition of the patient must be made. These may be classified as:

- A. Disease without reference to the lesion
 1. Cardio-vascular-renal disease
 2. Pulmonary diseases, emphysema, bronchitis
 3. Disability incident to age
 4. Blood dyscrasia
- B. Disease secondary to the lesion
 1. Anemia
 2. Dehydration
 3. Protein deficiency
 4. Obstruction

Preoperative Treatment

As preoperative treatment the patient is given

* Read before Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

sulfasuxidine, three tablets six times daily, penicillin, 25 units intramuscularly every three hours, and low residue diet, for a period of three or four days. In the beginning the bowel is thoroughly decompressed, but colonic irrigations are not continued.

1. **Transfusion.** Anemia is corrected by transfusion. Meyer gives 2000 cc. of blood before operation. In most places blood is fairly difficult to get. The author uses less blood than this, but he has blood plasma and donors available for immediate use during the operation, and during the period of recuperation.
2. **Dehydration.** Many patients are dehydrated on entering the hospital. The fluid and electrolytic deficiencies should be corrected.
3. **Protein Deficiency and Serum Albumin.** Thirty per cent of patients with malignant colon lesions have a protein deficiency. Protein determination may be estimated in almost any laboratory. When it is low, the patient should be fed a high protein diet and have parenteral amino acids and transfusions administered until the condition is corrected. Meyer calls attention to the fact that dehydration and severe infections tend to falsely elevate the circulating proteins, and states that hematocrit readings should be done simultaneously as an index of the plasma values. Some of the more common complications which result from hypoproteinemia are wound infections and impaired wound healing, anorexia, weight loss, and nutritional and pulmonary oedema.

Obstruction

No other complication of a lesion of the colon is so dangerous as that of obstruction. It influences markedly the type of treatment, the morbidity and the mortality.

The sequelae which develop as a result of colonic obstruction may be understood and appreciated more if the physiological changes are observed as they occur in a case.

Wagensteen has called attention to the closed loop effect of colonic obstruction. Because the bowel cannot empty retrogradely at the ileocecal valve, distention is progressive, even to a point where perforation may become a complication. This marked distention permits transudation of infected contents, which is capable of producing peritonitis. Meyer states also that the pooling of venous blood and plasma-like fluid in this long loop of obstructed bowel is sufficient to explain hemoconcentration, which leads to shock

and extrarenal azotemia.

Management: The management of colonic obstruction is directed at life saving. The patient is given intravenous fluids and transfusions preparatory to doing an immediate colostomy. This may be placed anywhere proximal to the lesion, but the author prefers transverse colostomy because the long mesentery makes the operation easy to perform, the bowel is easily decompressed through it, and it is far removed from the site of future surgery. When the patient has recovered sufficiently, and this requires about three weeks, the patient is cared for in the same manner as a case in whom no obstruction was present. If a primary resection is done and continuity of the bowel is established, the colostomy is closed in three or four weeks.

Surgical Procedures

I. **Colostomy:** In elderly debilitated patients with intestinal obstruction and with metastasis, permanent colostomy should be performed. A left McBurney colostomy is usually very satisfactory.

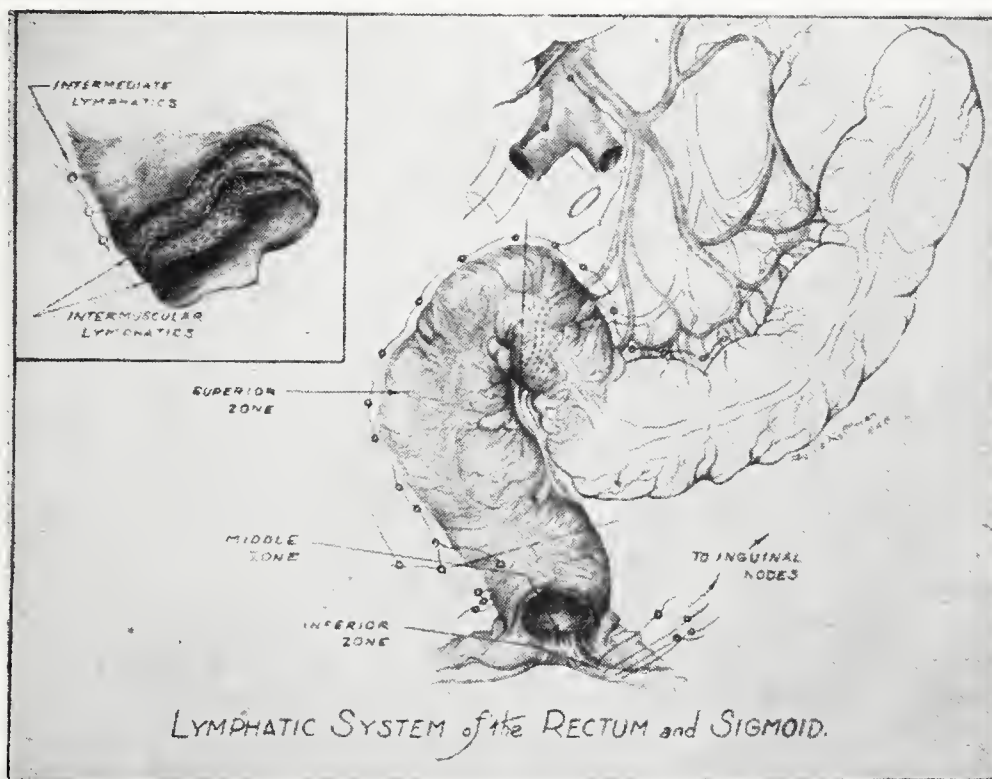
II. **Pull Through Operation:** This operation is designed for upper rectal lesions too low for primary anastomosis from above. It has been used widely in Europe, and is now being advocated by Mandl. It has found favor with a few American surgeons, but on the whole it has been unsatisfactory. Criticism in this country is directed at the frequency of perineal fecal fistula, at the high percentage of incontinence and at stricture of the rectum at the site of anastomosis. If the operation were performed more frequently the results would improve.

III. **Abdomino-Perineal Operation:** For many years, since its introduction by Miles, this has been the classic operation for malignant lesions of the lower sigmoid, the rectosigmoid and the upper rectum. Wide excision of tissue is the thing which commends it. The extensive removal of tissue distal to the lesion is unnecessary, as it has been shown by Collier, Gilcrest, David and others, that lymphatic drainage of the rectosigmoid is always toward the head except when the lymph channels are blocked. The amount of tissue to be resected proximal to the lesion to effect a cure should depend upon the surgeon's judgment, and not upon the basis of a predetermined type of operation. It will be found necessary to perform the abdomino-perineal operation more often in fat people with short sigmoids and with short mesenteries, and particularly in a person with a narrow deep pelvis. A permanent colostomy offers its chief disadvantage. No one will argue that a complete operation making for a longer life should be sacrificed for the sake of

continuity of the bowel; however, in many cases both may be obtained. Morbidity is high. Perineal wound healing is slow and often uncomfortable. Because the rectum is removed, much support of the bladder is lost; the nerve supply to the bladder may be disturbed; micturition is disturbed and cystitis may result. In men, abdomino-perineal resection is followed by impotency in 95 per cent of the cases. With the present day management, shock and mortality are much less than they were fifteen years ago. The mortality rate is still high.

Resection with primary anastomosis establishing continuity of bowel has much to commend it. The dreaded permanent colostomy is avoided, and because of this psychological factor patients

popularized by Dixon, Wagensteen and others. The operation is feasible. Malignant cells spread chiefly by way of the lymphatic stream. In the zone draining the rectosigmoid the lymphatic system is classified as (1) intramural, (2) intermediate lymphatics, and (3) the superior hemorrhoidal chain. The intramural lymphatics consist of two systems of meshwork of lymph channels—the submucosal and the intermuscular, which communicate through radial lymphatics lying between the circular muscle fibers. The intermediary group of lymphatics drain the intramural group by way of the external muscular coat at intervals of about 4 cm. This is the main source of spread of cancer cells. The intermediate lymphatics drain into the superior hemorrhoidal



Legends

FIG. 1. LYMPHATICS OF RECTUM AND RECTOSIGMOID. There are three zones: Inferior, Middle and Superior. Insert: Shows intramural meshwork draining into the intermediate lymphatics.

will undergo surgery earlier. Instead of an unpleasant scar, a normally functioning rectum will be present. Instead of an incompetent bladder and cystitis, there will be a normal bladder. Men retain sex potency. Both male and females take their place in society without fail. The morbidity is much less, and the hospital stay is much shorter than in abdomino-perineal resection.

The operation was practiced in 1908 by Doctor Balfour as a tube resection. It has been

lymph channel and nodes. Intercommunication between the sections of meshes drained by channels to the intermediary system is rare. Consequently malignant cells probably do not spread more than 4 or 5 cm. in the gut wall beyond the proximal edge of the lesion. Even with wide excision of bowel with its mesentery, end to end anastomosis may be made safely. This is particularly true in long sigmoids with a long mesentery. Even when the sigmoid is short, it may be lengthened by cutting along the avascular lateral peritoneal fold and mobilizing the sigmoid. The rectum can also be lengthened, as has been shown by measurements made by Wagensteen. The middle hemorrhoidal artery anastomosis with the superior hemorrhoidal, and assures a suffi-

cient blood supply for healing. This is particularly true if infection is absent. Infection can be kept at a minimum by proper pre- and post-operative care.

The author does not wish to enter into the details of how to perform the operation. Certain points are worth observing. The anesthetic should be spinal unless it is especially contraindicated. Fatty epiploica should be removed to insure sufficient clean bowel for accurate end to end anastomosis. A colon tube should be inserted up into the proximal loop, either before or after the anastomosis is complete, and withdrawn one-half inch daily post-operatively. The peritoneum should be advanced over the line of anastomosis as it is claimed this lessens the tendency to stricture formation. I have no hesitancy in performing open anastomosis. Peritonitis develops from a leaking suture line, rather than from slight soiling at the operation.

Post-operative care consists in the administration of sulfa drug, penicillin, the maintenance of fluid and electrolytic balance, and transfusions if indicated.

Summary: The diagnosis and treatment of malignant lesions of the rectosigmoid has been discussed. The desirability and feasibility of doing a resection with primary anastomosis and re-establishing continuity of the bowel has been stressed.

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DIAGNOSTIC ASPECTS OF RUPTURED INTERVERTEBRAL DISKS *

ROBERT WATSON, M. D.

and

JOSEPH F. SHUFFIELD, M. D.
Little Rock

In the last decade, the management of the ruptured intervertebral disk has become an ever-increasing problem. It is the purpose of this paper to better formulate the criteria that justify a diagnosis, and to present some estimate of what one may expect as the end result of surgical treatment.

A diagnosis of ruptured intervertebral disk need no longer be left to the specialist. Instead, it is the general practitioner, the family doctor, who first sees these patients and is able now to make this diagnosis.

It is only logical to ask why it is that such a lesion should remain obscure for generations only to increase, in a few years, to such surgical proportions. The publication of Mixter and Barr (1) in 1934 established the ruptured intervertebral disk as a definite clinical entity. Since that report, the medical literature on the subject has become voluminous.

The term, ruptured intervertebral disk, now has found its place in our diagnostic considerations along with other orthopedic and neurological disabilities. As a result, such vague generalized terms as sciatica and lumbago are rapidly disappearing from use.

Therefore, due to our thinking in terms of anatomy and spinal mechanism, rather than symptomatology alone, it is only natural that our diagnostic accuracy should be increased.

In this state, the protection afforded the employee through the Workmen's Compensation Act has brought to attention cases that might have otherwise long remained unrecognized. The increased employment during the past five years with the resultant exposure of inexperienced workers to new industrial hazards has also been a factor in increasing the number of intervertebral disk injuries.

Up to the present time there have been reported in the medical literature some five thousand or more cases of ruptured disks throughout the spinal axis; approximately 96 per cent occurring in the lumbar region, and 98 per cent of these lumbar disks occurred at the 4th or 5th interspace.

* Read before Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

Our presentation will be limited to symptoms, signs, and operative results of these lesions of the lumbar region.

The histories given by patients with ruptured disks are relatively uniform. A story of trauma to the lumbar region, though mild, can in most instances be obtained. This trauma usually results from a simple fall, frequently associated with sudden torsion of the trunk when in an awkward position. Stepping into a hole, or slipping while carrying a weight is a common story. In cases associated with trauma, low back pain usually comes on instantaneously, and pain radiating down the posterior aspect of the thigh may also be present immediately or develop within the next few hours or few days. Usually, the initial pain and disability is sufficiently severe to keep the patient in bed or otherwise incapacitate the patient for two weeks or longer.

The initial symptom, almost without exception, is pain low in the back. In the absence of definite traumatic history, the onset of acute pain in the back is usually associated with awkward straining lifts or sudden flexion of the lumbar spine. The pain may be mild or severe, but in the majority of cases it is incapacitating. It is relieved only by complete immobility, usually in the recumbent position. It is always intensified by movements affecting the spine. As the acute pain subsides, usually in a week to ten days, and the patient becomes ambulatory, he finds that bending forward or lifting in the bent forward position may cause a recurrence of his pain.

During the acute episode, the pain in the back and leg is usually aggravated by coughing, straining or sneezing. Particularly is this pain associated with an awkward step on some uneven surface. Paresthesias are commonly an accompaniment of the pain in the leg. Many patients complain of soreness of the calf muscles of the affected side and of tingling pins-and-needles sensations over the surface of the foot, depending on the vertebral level of the injury. Weakness of the involved extremity is usually not a major complaint.

On examination, it is noted that the patient walks or gets on and off the examining table with caution. While being interviewed, he sits in a chair in a tilted manner with the weight of the body resting primarily on the buttocks of the unaffected side, the painful leg in semiflexion at the knee. This is a valuable diagnostic sign. If examined in bed, the patient usually has pillows beneath the knee of the affected leg.

As he stands erect and disrobed, lumbar muscle spasm is usually visibly and palpably present,

greater on the affected side. Loss of normal lumbar lordotic curve may be evident, that is, the patient may have a "poker" spine. Listing of the vertebral column away from the affected side is a common finding. The straight leg raising sign of Lasegue is commonly employed as a test to elicit pain and tenderness along the sciatic nerve distribution. Prolonged mild jugular compression with a blood pressure cuff, as advocated by Nafziger (2), frequently brings out a spontaneous complaint of pain along the distribution of the sciatic nerve and exaggeration of the paresthesias or tingling sensations of the foot.

Comparative measurements of the calf muscles at corresponding levels of both legs are particularly important. In instances where actual nerve-root compression at lumbar 4 or lumbar 5 intervertebral levels exists, one finds 1.5 to 3 centimeters muscular atrophy at the greatest circumference of the calf. These muscles are flabby and atonic.

The sensory distributions of the lower lumbar and sacral nerves, as described by Foerster (3) and lately modified by Keegan (4) are of diagnostic value. Complaints of numbness or of tingling sensations over certain toes are a localizing aid. Lesions of the 4th interspace usually give sensory changes over the great toe of the affected side, while those of the lumbosacral interspace give sensory impairments over the lateral toes and the outer aspect of the foot. Reflex changes of the lower extremities are limited, in most instances, to the Achilles tendon responses. These changes represent a definite impairment or absence of the reflex on the affected side.

X-ray studies are indicated in all cases, more for their negative than diagnostic value. Evidences of loss of normal lordotic lumbar curve, or a diminution of the lumbar intervertebral spaces should be sought. However, such evidences alone are not a necessity in diagnosis. Lumbar puncture for Queckenstedt test and total protein determination may be left to the judgment of the examiner.

Certainly, all patients should have a thorough orthopedic evaluation before an unequivocal diagnosis of a ruptured intervertebral disk is made, because many common orthopedic disabilities may closely simulate ruptured disk symptoms.

In evaluating the need for surgery in any patient with a ruptured intervertebral disk, one is justified in asking whether or not this operation is mandatory, whether or not this disturbance would clear up in time without surgery, and

what results can be expected from such surgery. Certainly, one would ask what has become of the thousands of cases occurring in the past before the advent of surgery. This last question is answered by two groups of patients.

In the first group, which is by far the larger, the extruded nuclear material apparently in time scars down, contracts, and the nerve-root is relieved of pressure. After the initial attack the patient is no longer disturbed except for rare instances of backache following exertion.

The second, and definitely the smaller group, is subject to recurrences of progressive extrusions with pain and disability, which may follow any common manner of exertion or awkward trauma.

It is our belief that no one should be considered for surgery during or immediately following a single incapacitating attack. Instead, conservative treatment of bed rest with knees in semiflexion, bed rest with traction, sleeping on a very firm mattress, or hot tub soaks should all be tried over an adequate period of time. It is that group with recurrent attacks who have not responded to conservative methods that are justified for surgical consideration.

Therefore, we have established the following criteria that we feel should be present to justify surgery:

1. Recurrent attacks of low back pain with radiations down the course of the sciatic nerve on only one side, or a prolonged incapacitating attack not responding to conservative measures,
2. Calf muscle atrophy of the affected side, indicating long standing and sometimes irreversible damage,
3. Diminished or absent ankle reflex on the affected side,
4. Pain on stretching the sciatic nerve on the affected side,
5. And one or more of the following—
 - a. Lumbar muscle spasm,
 - b. List of the lumbar spine,
 - c. Local pain on pressure over the level of suspected disk,
 - d. Sensory changes over either the medial or lateral aspect of the foot.

Collectively, these represent a rigid standard. Many cases that did not meet these standards may have been misinterpreted as not possessing a disk justifying surgery. However, it was only when we strayed from these established criteria that negative explorations were made.

A study of sixty cases has been made. These represent a group of consecutive operative cases,

chosen with the same standards and in all the same surgical procedure was performed. The patients varied in age from 17 to 65 years. 77 per cent were males averaging 41 years of age. 23 per cent were females averaging 36 years of age.

A history of injury, always mild, was recorded in 66 per cent. The duration of symptoms varied from 3 months to 30 years. In men the lesion was on the left in 64 per cent. In women, it was on the left in 63 per cent.

Radiating pain down the posterior aspect of the thigh was present in 100 per cent of cases and was recorded as being aggravated by coughing in 93 per cent. An absent or badly impaired Achilles reflex was present in 82 per cent. Demonstrable muscle atrophy was present in 85 per cent. Sensory impairments were recorded in 75 per cent.

With rare exception, adjacent interspaces were explored. 46 per cent of the herniations were present at the lumbosacral interspace, 40 per cent were present at the 4th interspace, and 5 per cent were present at both the 4th and 5th interspaces. Only 2 per cent were encountered at the higher levels. Negative explorations were present in 7 per cent. There were no postoperative deaths.

Detailed questionnaires have been sent to a series of sixty patients who have been operated for a period of more than four months. Through the cooperation of the State Workmen's Compensation Commission, we have been able to supplement our information on those patients with compensable injuries not located through the questionnaires.

We have been able to make a study of the postoperative results in 100 per cent of the compensable cases, and 87.5 per cent of the non-compensable cases. Of the non-compensable cases, we have the postoperative results of 100 per cent of the females and 75 per cent of the males. Therefore, this study divides itself into three groups of patients, females, males with non-compensable injuries, and males with compensable injuries.

Of the females, 92 per cent returned to their housework or regular employment within from ten days to six months after operation. The average postoperative period of recovery was $2\frac{1}{2}$ months. All of these women state in retrospect that they would gladly submit to operation again if the circumstances again presented themselves.

The males with non-compensable injuries, with the exception of one, returned to some manner

of earning a living wage within sixty days of operation. Of those patients answering the questionnaires, only one stated that he was not completely satisfied with his operative results, a percentage of less than five per cent.

Of the males with compensable injuries, 60 per cent returned to their previous employment or to other work with an equal income within an average of four months after operation. 20 per cent were allowed a partial permanent evaluation of 10 per cent disability. The remaining 20 per cent have as yet, by their own statements, not reached a maximum period of recovery and the estimate of their disability has not been made. 14 per cent of the males with compensable injuries state that they are not satisfied with the result of the operation, and state in retrospect that they would not again consent to this operative procedure. By their own statements, they are physically unable to perform any manner of work offered them.

We have been able to make a follow-up study based on 93.7 per cent of this series of sixty post-operative patients. This information reveals that we have obtained, for all practical purposes, a near perfect result in the housewife. We have returned 95 per cent males without compensable injury to a living wage in two to three months after operation, and we have returned 60 per cent males with compensable injuries to regular work within four months of operation.

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"COURAGE AND DEVOTION BEYOND THE CALL OF DUTY"

Through the cooperation of Mead Johnson & Company \$34,000 in War Bonds are being offered to physician-artists (both in civilian and in military service) for art works best illustrating the above title, as applied to physicians in war and in peace.

This contest is open to members of the American Physicians Art Association and will be judged June 9-13, 1947, at the Atlantic City Session of the American Medical Association. For full details, write Dr. F. H. Redewill, Secretary, Flood Building, San Francisco, Cal., or Mead Johnson & Co., Evansville 21, Indiana.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

Committee on the Heart
Arkansas Medical Society
C. T. CHAMBERLAIN, M. D., Chairman
Fort Smith

ANTICOAGULANT THERAPY

Currently there are two preparations; namely, heparin and dicumarol, that are being used clinically for the purpose of preventing thrombosis. Neither preparation possesses the qualities of the ideal anticoagulant. Both preparations require careful and daily observation of the patient who receives them, and neither preparation is practical for long-continued administration. However, sufficient clinical information has now accumulated to show that both preparations are effective in preventing thrombosis and that, when the preparations are used properly, the risk of bleeding is very small. There is no evidence that either preparation has any effect on a thrombus that already has formed.

Heparin: Heparin is prepared commercially from beef lung and dispensed usually in ampules containing 100 mg. in 10 c.c. of solution. It appears to have no toxic effects or significant physiologic effects other than its anticoagulant action. Heparin impairs coagulability of the blood, apparently by inhibiting both the conversion of prothrombin to thrombin and the coagulation of fibrinogen by thrombin. It is only effective when administered parenterally.

Two methods of intravenous administration have been used for the purpose of preventing thrombosis (1) 100 to 200 mg. (preferably the latter) are added to 1,000 c.c. of a diluent, either a 0.9 per cent solution of sodium chloride or a 5 per cent solution of dextrose. The resulting dilute solution is administered continuously, starting with 25 drops per minute. The number of drops delivered each minute is varied so that the coagulation time of venous blood in a glass tube is kept between fifteen and twenty-five minutes. This necessitates testing the coagulation time every three to six hours during the first twenty-four hours of administration and at least every twelve hours thereafter, because of the variability of sensitivity to heparin in different cases and possibly from time to time in the same case. (2) Repeated intravenous injections of the concentrated solution (10 mg. of heparin per cubic centimeter) are given at the rate of either 5 c.c. (50 mg. of heparin) every

four hours or 10 c.c. (100 mg. of heparin) every six hours. This method disregards differences in sensitivity to heparin, and the coagulation time is not determined. In spite of the fact that the coagulation time returns to normal for varying periods between injections, the method seems to be effective.

Heparin can be given intramuscularly in a slowly absorbed medium. Less heparin is used when this technic is followed, but the effect is difficult to control and pain and bleeding may occur at the site of injection.

When given intravenously, heparin acts rapidly and its effect terminates within a few hours after its administration is stopped. However, heparin is expensive and its administration is time consuming and impractical for periods longer than two weeks.

Dicumarol: Dicumarol (3,3'-methylenebis (4-hydroxycoumarin), originally isolated from spoiled sweet clover, is now made synthetically and usually is dispensed in capsules, each containing 100 mg. It impairs coagulability of the blood by producing prothrombin deficiency as indicated by increase of prothrombin time. The coagulation time of whole blood also may be altered but not proportionately to changes in the prothrombin time. Determination of the coagulation time is not a reliable guide to the action of dicumarol. Dicumarol also may prolong clot retraction and increase the sedimentation rate of the erythrocytes. There is also some evidence that it inhibits adhesiveness of the thrombocytes. Other than these actions, dicumarol appears to have no effect on the human body.

Dicumarol is effective when administered orally. A satisfactory preparation for parenteral use has not been developed. Patients vary greatly in their sensitiveness to dicumarol; therefore, when it is administered a daily test of the prothrombin time is essential in order to be certain that an adequate, but not excessive, effect is being produced. It is advisable that the prothrombin time be expressed as the percentage of the normal prothrombin because thromboplastins used in different clinics and different hospitals in testing the prothrombin time may vary in potency. Also, thromboplastins prepared by the same technic may vary in potency from time to time. It is important that the prothrombin times which correspond to those for 10 per cent, 20 per cent and 30 per cent prothrombin be known each day. To this end, when any particular thromboplastin is used, the prothrombin times for normal plasma and normal plasma di-

luted to 10 per cent, 20 per cent and 30 per cent with a 0.9 per cent solution of sodium chloride should be checked frequently. When dicumarol is being administered it is advisable that the patient's prothrombin time be kept between the limits indicated by the value for 10 per cent and 30 per cent normal plasma.

The dosage schedule for dicumarol which has been used successfully at the Mayo Clinic for more than five years is as follows: The entire amount for one day is given in a single dose. The first dose is 300 mg. On each subsequent day when the prothrombin is greater than 20 per cent of normal prothrombin, 200 mg. of dicumarol is given. On days when the prothrombin is less than 20 per cent of normal, no dicumarol is given. If the prothrombin drops below 10 per cent of normal during the first few days of treatment and remains there for two days, 20 to 30 mg. of menadione bisulfite is given intravenously, and thereafter only 100 mg. of dicumarol is given to the patient on those days on which the prothrombin is greater than 20 per cent of normal. Using this schedule, prothrombin deficiency has been maintained for as long as six months without untoward or toxic effect on the patient and with return of prothrombin to normal within a few days after administration of dicumarol finally was discontinued.

The disadvantages of dicumarol as an anticoagulant are that its effect is delayed for one or two days (sometimes longer) after administration is begun and that the effect persists for two to seven days after administration is discontinued. It is more difficult to stop its anticoagulant action than is the case with heparin.

Risk of Bleeding: There is some risk of bleeding if either heparin or dicumarol is used. However, this risk is greatly minimized if careful attention is paid to dosage and if an excessive anticoagulant effect is avoided. If bleeding occurs during administration of heparin, it can be stopped rather quickly by discontinuing administration of heparin. If major bleeding occurs during administration of dicumarol, transfusions of fresh citrated blood should be given. These replace lost blood and to some extent supply prothrombin. Also 60 mg. of menadione bisulfite (synthetic vitamin K) should be given intravenously and the dose repeated once or twice a day until bleeding ceases. The prothrombin deficiency and bleeding usually can be terminated within twenty-four hours by these procedures. Minor bleeding consisting of epistaxis, small hematomas in operative wounds, microscopic hematuria or localized ecchymoses in the

skin may occur during administration or dicumarol (in about 3 per cent of cases) but may be disregarded. Major bleeding occurs rarely except from operative wounds or ulceration in the gastro-intestinal tract. In 1,686 cases in which dicumarol was administered postoperatively, such bleeding was encountered in only 1 per cent of the cases in which thrombosis or embolism had occurred prior to the administration of dicumarol and in 2.5 per cent of the cases in which thrombosis or embolism had not occurred.

Contraindications: Obviously, anticoagulant therapy is contraindicated in cases of purpura, in which there is a tendency for the patients to bleed. At the present time, it seems best to consider it contraindicated in subacute bacterial endocarditis because of tendency for spontaneous petechiae and bleeding to occur. There is no good evidence that anticoagulants and penicillin are superior to penicillin alone in the treatment of this disease. Anticoagulants are contraindicated in cases in which an operation recently has been performed on the brain or spinal cord. This is not because the risk of bleeding is greater, but because the consequences of even minor bleeding at the operative site may be great. Dicumarol is contraindicated in cases of renal or hepatic insufficiency because the effect of the drug may be accentuated, greatly prolonged and difficult to control. Dicumarol should be administered cautiously in cases of dietary deficiency although in these cases an excessive response can usually be controlled with synthetic vitamin K. Anticoagulants should be given cautiously to patients who have ulcerative lesions, open wounds and drainage tubes in place, since there is some increased risk of local bleeding in these patients.

Choice of Anticoagulants: Because of its low cost and ease of administration, dicumarol has almost entirely supplanted heparin as an anticoagulant in this country. However, when dicumarol is given, preliminary heparinization is advisable in those cases in which a rapid anticoagulant effect is desired. The simplest procedure is to start administration of heparin and dicumarol simultaneously, giving 50 mg. of heparin intravenously every four hours until the prothrombin is less than 20 per cent of normal. Since heparin also affects the prothrombin time, blood for tests of prothrombin time should be withdrawn four hours after a dose of heparin has been given. If anticoagulant therapy is desired and a good setup for determining consistently

comparable prothrombin times is not available, only heparin should be used. In cases of hepatic or renal insufficiency also, heparin should be used alone. Heparin is also superior as an anticoagulant for use during and immediately after operations on the blood vessels.

Uses of Anticoagulants: The greatest experience with anticoagulants to date has been in the treatment of postoperative thrombo-embolism. In such cases the rationale is predicated on the statistical clinical experience that a patient who has a postoperative pulmonary embolism and survives the first few hours has approximately a 44 per cent chance of having a subsequent thrombo-embolic episode and an 18 per cent chance of having a subsequent fatal embolism. Patients who have a clinically recognizable venous thrombosis or thrombophlebitis have approximately a 25 per cent chance of having a subsequent thrombo-embolic episode and a 6 per cent chance of having a subsequent fatal embolism. When anticoagulant therapy has been used properly in cases of postoperative pulmonary embolism, venous thrombosis and thrombophlebitis, subsequent thrombo-embolic episodes have been almost entirely prevented. In cases in which patients who are to undergo operation have had thrombophlebitis or pulmonary embolism previously, under any circumstances, the risk that postoperative thrombo-embolic complications will develop is increased greatly. The prophylactic use of dicumarol, beginning on the third postoperative day, has been almost entirely effective in preventing such complications. Although rather large numbers of patients who have never had thrombo-embolism have been given prophylactic anticoagulants successfully during the postoperative period, it is not practical at present to use anticoagulant therapy routinely during the postoperative period in all cases. When anticoagulant therapy is used postoperatively, it should be continued for at least ten days and until the patient has been ambulatory for at least three days.

Anticoagulant therapy has also been used successfully in a small series of patients who have had pulmonary embolism, venous thrombosis or thrombophlebitis complicating severe injuries, infectious disease, congestive heart failure and the puerperium. The danger of uterine bleeding in the postpartum period, if anticoagulants are given, is almost nil if there is normal involution of the uterus and if treatment is not begun before the sixth postpartum day.

Anticoagulant therapy is rational, advisable,

and has been used successfully as part of the treatment of acute arterial occlusion in the extremities that is due either to arterial embolism or arterial thrombosis in situ. In cases of recurrent idiopathic thrombophlebitis, anticoagulant therapy may be of value during periods when episodes occur frequently but the tendency to recurrence at isolated intervals over long periods limits the effectiveness of such treatment in the disease.

During 1946 there have been three reports of the use of dicumarol immediately after the occurrence of acute coronary occlusion with myocardial infarction. Statistical studies have indicated that the incidence of thrombo-embolic complications is high (approximately 35 per cent), during the six weeks after acute coronary occlusion. Such complications include embolism of the pulmonary, cerebral and peripheral arteries, venous thrombosis and thrombophlebitis. Apparently these thrombo-embolic complications have been reduced to a minimum in a significantly large series of cases in which dicumarol has been administered. There is some evidence that the administration of dicumarol also has inhibited the subsequent development of coronary thrombosis but the continuous use of dicumarol is impractical at present, for a prolonged period during which it might be desirable for this purpose.

Nelson W. Barker, M. D.,
Rochester, Minnesota.

Acknowledgment is hereby made of permission by the American Heart Association to publish the above.

The AMERICAN MEDICAL ASSOCIATION is going to celebrate its centennial in Atlantic City, June 9-13, 1947. Elaborate plans are being made for this celebration.

Only Fellows and Invited Guests are eligible to attend. Membership in your state society is the primary qualification for Fellowship in the A.M.A. Fellowship dues and subscription to THE JOURNAL A.M.A. are both included in one annual payment of \$8, which is the cost of THE JOURNAL to subscribers who are not Fellows.

If you are not a Fellow and plan to attend the Atlantic City session, which will be a milestone in medical history, you can save yourself considerable time and confusion when registering, if you will write now to the American Medical Association, 535 North Dearborn Street, Chicago 10, and ask if you are eligible to become a Fellow.

VETERANS ADMINISTRATION SUGGESTIONS ON THE TREATMENT OF MALARIA*

It is a matter of great importance that all veterans with service-connected malaria receive adequate medical care. In order that the treatment be standardized in accord with modern medical concepts of malaria, it is desired that the following information be disseminated to physicians in your area who are concerned with the treatment of malaria in veterans.

Information from the field leads to the conclusion that it is a not uncommon practice for physicians to diagnose and treat malaria on clinical symptoms alone without confirmation of the diagnosis by examination of blood smears. This practice is not in accord with acceptable standards.

Unless the individual is again bitten by an infected mosquito, malarial relapses become progressively less frequent with the lapse of time. At this date there is good reason to believe that in a large portion of returned overseas veterans relapses have already ceased to occur and with each passing month it becomes less likely that the symptoms for which they seek treatment will be due to malaria. Therefore, a history of malaria during military service without other supporting evidence does not warrant the assumption that recurring chills and fever are due to malaria. Furthermore, malarialogists of extensive experience are agreed that clinical observation of a paroxysm is not a reliable basis for diagnosis of malarial etiology.

By the use of thick blood smear technique, the malarial organism can usually be demonstrated in the patient during symptomatic relapse. Failure to demonstrate the organism by careful repeated examination of properly prepared blood smears throws grave doubt upon a malarial etiology for the patient's symptoms.

In view of these facts it is quite evident that not only good medical practice but the welfare and safety of the patient requires that anti-malarial therapy be administered only after a positive blood smear. It is the consensus of medical opinion that the only justifiable basis for the diagnosis of a malarial relapse and institution of malarial therapy is the demonstration of the organism in a blood smear from the patient.

Following examination of blood smears the management of the case should be as follows:

* Directive from Chief Medical Director, Veterans Administration, Washington, December 6, 1946.

(1) If the blood smear is positive, a full course of Quinacrine (Atabrine) or Chloroquine (Aralen) should be administered (VA Technical Bulletin 10-14, July 15, 1946, "Treatment of Malaria").

(2) If the veteran has had four or more relapses due to malaria he should be admitted to a veteran's hospital for a course of Panacrine-Quinine treatment unless there are contraindications. (VA Technical Bulletin 10-14, dated July 15, 1946, "Treatment of Malaria").

(3) If the veteran's symptoms require treatment but the blood smear is negative for malaria, he should be admitted to a veterans' hospital for diagnostic study, where, if repeated blood smears continue to be negative, careful study may be expected to result in a correct diagnosis of his ailment and efficient treatment thereof. Diagnosis of malaria by therapeutic trial is never a justifiable procedure.

In a few words, the management of the case may be summarized as follows: Blood smears should be examined on every case of suspected malaria. If smears are positive, give treatment for malaria. If smears are negative, hospitalize the veteran to determine the exact cause of his illness in order that proper treatment may be administered. This plan of medical care for malaria should be followed wherever possible.

The diagnosis of malaria by blood smear requires laboratory equipment as well as training and experience. In the event these are not available to the physician to whom the veteran applies for treatment, the physician should be requested to send the veteran, or thick blood smears to a VA Regional Office, Hospital or Center. If these are not feasibly available, he should contact the Regional Office and request authorization to utilize the services of a private laboratory of recognized standing. The contact with the Regional Office may be made at government expense by letter, telegram, or telephone if necessary.

Research and investigation in recent years have brought forth certain generally accepted facts regarding the therapy of relapsing malaria.

In order that men might be kept on duty, as a military measure, suppressive treatment was justifiable. In civilian life also suppressive treatment sometimes becomes desirable over a short period in order that a veteran may accomplish some urgent task. From a medical standpoint, however, there is no justification for suppressive treatment. Therefore, it is requested that at each relapse the veteran be given the course of

treatment prescribed in VA Technical Bulletin 10-14, dated July 15, 1946, "Treatment of Malaria," and that treatment then be discontinued, to be resumed only when and if another relapse occurs.

Experience with many thousands of cases during the recent war conclusively demonstrated the superiority of Quinacrine (Atabrine) over Quinine, and the lower incidence of undesirable reactions attending its use. Experience since the war has demonstrated also the value of Chloroquine (Aralen). Its action is similar to that of Quinacrine, but the course of treatment is shortened and the interval between relapses much longer. This drug has now been made available to VA field stations and is also available through commercial channels under the trade name of Aralen (Winthrop Chemical Company) (VA Technical Bulletin 10-14, dated July 15, 1946, "Treatment of Malaria" and Chief Medical Director's letter to all Branch Offices, August 27, 1946). The administration of Quinine is indicated only if the veteran shows an idiosyncrasy to Quinacrine and Chloroquine.

It is requested that every necessary channel be utilized to convey the above information to physicians who are prescribing treatment for veterans. It is essential that all physicians be reached who are concerned in the treatment of veterans, whether they are serving full-time, part-time, on a fee basis or who are participating members in a state medical service program.

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?

QUESTIONNAIRE TO PROVIDE INFORMATION ON MEDICAL CARE IN RURAL AREAS

A 12-point questionnaire, designed to give a picture of the medical personnel, facilities and health needs of every county in the United States, is being mailed this week by the American Medical Association in behalf of the Joint Committee for Coordination of Medical Activities and the Committee on Rural Medical Service. The questionnaires are being sent through the state medical societies to the secretaries of 3,072 county medical societies.

The questionnaire also will provide definite information on the number of physicians in rural areas, the placement of physicians returning from service in the armed forces and the migration of those physicians into farm communities.

"One of the important phases of this questionnaire," says Thomas A. Hendricks, secretary of the Council on Medical Service, "covers the development of prepayment medical care plans in rural areas and the extension of medical care to lower income groups through health centers and diagnostic clinics."

Virginia Shuler, director of the Bureau of Information, who has been aiding medical officers seeking relocation in areas where medical services are most needed, says that through the "additional comments" on the questionnaire a "wealth of information will be provided which will help the medical profession in extending better health service in the rural areas."

Attached to each questionnaire, Mrs. Shuler says, is a state highway map for use by the county society in answering the second question.

The following questions are listed:

1. Name of county.
2. Approximate population in the medical service area of which your county is the center. . . . Circle on enclosed map area served by physicians in your county including parts of adjacent counties.
3. Number of physicians serving this area.
4. How many physicians not previously in this area have come since 1944?
5. Are additional physicians needed in this area? Yes—No. General Practitioners . . . Specialists . . . What Specialists? . . .
6. Number of hospital beds available to the area. . . .
7. Distance of nearest qualified hospitals to center of population of area. . . .

8. Is ambulance service for the transportation of patients from home to hospital readily available? Yes—No. Do you believe it would be desirable? . . . Is ambulance privately, commercially or publicly owned?

9. Is there widespread participation in the Blue Cross or other voluntary hospital insurance plans in your area? . . . If not, do you think the extension of them is desirable?

10. Is there widespread participation in a voluntary medical prepayment plan or plans in your area? . . . If not, do you think the extension of them is desirable? . . . If no medical service plan exists, have you received inquiries concerning the possibilities of the development of a prepaid medical service plan?

11. The Hill-Burton legislation provides for public health centers and diagnostic clinics. Do you have such a center or clinic in your county? . . . If so, is it operated with the approval or direction of the county medical society?

12. Additional comments.

OBITUARY

FRANK NISBETT, age 75, Brookland, died January 11th following an illness of several months. A lifelong resident of Craighead County, he graduated from Memphis Hospital Medical College in 1905. He was an honorary member of the Craighead County Medical Society and of the Arkansas Medical Society. Surviving relatives are two daughters and one foster-son and three grandsons.

WILLIAM JASPER CURRY, age 95 years, died at Rogers January 4th. Born in Mattoon, Illinois, January 30, 1851, he practiced at Mattoon for two years, moving to Arkansas in 1875 and had practiced in Benton County for 72 years. For the past 61 years he had practiced at Rogers. He was a past master and life member of the Rogers Masonic lodge, a Scottish Rite Mason and a member of the Christian Church. He was an honorary member of the Benton County Medical Society and of the Arkansas Medical Society and had served as local surgeon for the Frisco Railroad since 1901.

Surviving relatives are his wife, two sons and four daughters.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

CHEST films of thousands of persons have shown lesions suggestive of early tuberculosis. Even though a fair percentage of these persons have had no tuberculin tests performed, no sputum examined, and no history of symptoms taken to confirm or deny the suspicious film findings, many of them have been labeled as tuberculous. This is scientifically unsound, and we should now take stock of our diagnostic criteria for the clinical determination of early tuberculosis.

WHAT IS EARLY TUBERCULOSIS?

Millions of people in the United States have been examined by means of mass radiography since the early days of World War II. This new technique is rapidly achieving the long-sought goal of X-Ray examinations of the lungs of the majority of adults in our country. This objective can easily be reached within five years if all our resources are mobilized and a national plan is executed with speed and efficiency.

Yet a word of caution must be given to prevent indiscriminate diagnoses of pulmonary tuberculosis on the basis of X-Ray examination alone.

Specialists in tuberculosis rightly insist that, before final diagnosis, every attempt be made to obtain sputum specimens, and that such specimens be submitted to meticulous examination by direct smear of actual or concentrated sputum and, if this be negative, by culture or guinea pig inoculation. If sputum is not present, a stomach washing should be made and the contents examined by appropriate culture methods in laboratories that employ skilled bacteriologists. In cases of pleural effusion, the same procedure should be followed. This is possible only in an accredited laboratory which has been certified by some impartial central laboratory.

If, after such diligent search, no tubercle bacilli are found, the diagnosis should be limited to "suspected tuberculosis." This does not mean that many of the shadows found on the survey films are not the residue of a tuberculous process that once was active. Nor does it mean that the person should not be followed for several years to observe new evidences of disease activity. Nevertheless, to be scientific in our practice of medicine and to avoid needless distress, we should refer to such persons as "suspects" until

such time as tubercle bacilli can be demonstrated. A firm stand of this sort should clarify confused thinking in mass radiography programs. To put it simply and candidly: do not diagnose pulmonary tuberculosis on the basis of an original X-Ray film alone.

One must study "suspected" cases by means of a careful history, including recent or present symptoms which are characteristic of tuberculosis. For differential diagnosis it is essential to employ the tuberculin test, using the intracutaneous method properly applied and interpreted by an experienced person. In the presence of a negative tuberculin test, other reasons than tuberculosis must be found for suspected shadows, in spite of characteristic location and configuration. Indeed, even when a cavity is demonstrated on the film, a negative tuberculin test demands that some etiological factor other than tuberculosis be sought as the cause.

The same criteria used in diagnosis must be applied even more rigidly in the treatment of tuberculosis, especially sanatorium care and chest surgery. Persons whose chest films show shadows, discovered by mass radiography, should not be rushed into the sanatorium simply on the evidence of X-Ray findings. A period of follow-up by the physician or clinic will determine the presence or absence of tubercle bacilli in the sputum, gastric contents, or pleural fluid.

Because a social stigma unfortunately attaches to a diagnosis of tuberculosis, and personal harm through mental anguish can occur, restraint should be practiced in naming the disease before its actuality can be proved. Even those persons whose diagnoses are confirmed will profit by a period during which they may become accus-

tomed to the idea that they have a serious disease. Such a practice will keep expensive sanatorium beds free for patients who are truly ill and will avoid unnecessary exposure of nontuberculous persons sent to sanatoriums by mistake.

Persons who have tuberculosis which requires sanatorium care cannot be greatly harmed by short delay of treatment; in many instances the disease has been present for some time. The chest surgeon, too, should wait and watch with patience until tubercle bacilli are demonstrated as present in the lungs. This is particularly true of the too easily performed procedure of pneumothorax. Before the normal physiology of respiration is permanently changed by surgical attack, there must be strong evidence that such change and its attendant loss of function will be compensated for by the patient's future control of active disease.

There is yet no evidence in medical literature that the minimal lesion case with negative sputum, negative gastric lavage, or no sputum is benefitted by sanatorium care. Rather it is a more realistic procedure to seek out and hospitalize the original positive sputum case which infected the minimal case so recently discovered.

We have placed emphasis in these remarks on the asymptomatic case with negative sputum or negative gastric contents. We must, however, be aware of and watch for "indolent" early tuberculosis. Caution is called for in the follow-up of early cases of tuberculosis that present vague findings and symptoms that are often difficult to elicit and interpret. This is the type of tubercu-

losis which British chest specialists call "indolent early tuberculosis," of whose prognosis we know little. Often such patients, when placed under sanatorium care, recover rapidly without surgical or special aid. Others deteriorate in the sanatorium in spite of the most expert medical skill and the finest facilities. One wonders if both types of cases would not have pursued the same courses undiscovered and unattended. We do not know why the body responds so indolently in these cases. Intensive investigation should help us find the answer, so that our follow-up program can be realistically directed and thereby be made more effective.

To sum up, no person should be labeled with the diagnosis of pulmonary tuberculosis on the basis of incomplete evidence. "Suspected tuberculosis" on the X-Ray film must be corroborated by a positive tuberculin test and by positive bacillary findings. Let treatment be delayed and deliberated until all the facts are in and all the evidence is evaluated. If such a practice is followed, physicians will gain in accuracy and skill of diagnosis, and limited hospital resources will be conserved. Most important of all, the person suspected of having tuberculosis will be assured thorough study and scientific diagnosis and will be treated for tuberculosis only if the disease is actually present. Judgments based on positive and complete evidence will give a final verdict that protects the individual and the public health.

What Is Early Tuberculosis? Herman E. Hilleboe, M. D., Public Health Reports, September 6, 1946.

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*Deceased.

EDITORIAL

VETERANS MEDICAL CARE PLAN

Official inauguration of the Veterans Admin-
istration for medical care of the service-con-
nected disabilities of veterans by members of
the Society has not yet been announced. All
preliminary arrangements have been completed
and a full list of the cooperating members has
been furnished the Veterans Administration.
Members who have not signified their desire to
participate in the program should secure the
required form from the state secretary.

EDITORIAL COMMENT

NARCOTIC COMMISSIONER WARNS ON
DEMEROL

Emphasizing the fact that demerol, a substi-
tute drug for morphine, has habit-forming prop-
erties, H. J. Anslinger, Commissioner of Nar-
cotics, writing in The Journal of the American
Medical Association, says:
"Now comes an article by Paul de Kruif in the
June issue of the Reader's Digest entitled 'God's
Own Medicine—1946' under the headline 'The
pain-fighting power of demerol is as miraculous

as that of morphine—without the opiate's dan-
ger of addiction.' This article adroitly makes no
reference to the work of Himmelsbach, Hecht,
Noth and Yonkman, all of whom warned of the
danger of addiction.
"Demerol was placed under federal narcotic
control by the Congress because of evidence of
its dangerous properties. Some of the persons
referred to in de Kruif's article could have at-
tended the hearings before the Ways and Means
Committee and could have testified as to what
they thought about the drug, but they elected to
remain silent.
"I fear a wave of demerol addiction if phy-
sicians believe the reckless and dangerous state-
ments made by de Kruif that the drug is free
from addiction properties. This is information
somewhat similar to that which appears in the
circular distributed by the manufacturer of de-
merol to push sales. Had this article been pre-
pared on a strictly scientific basis it would have
sounded a strong warning about the danger of
addiction. Our files contain numerous cases of
addiction involving the use of demerol."
Demerol, also known as dolantin, was dis-
covered in Germany and made its appearance
several years ago in the Argentine. Both of
these countries immediately placed the drug
under strict control.—Jour. Med. Soc., New Jer-
sey, Nov., 1946.

EDITORIAL COMMENT

NATIONAL CONFERENCE OF COUNTY
MEDICAL SOCIETY OFFICERS

The Board of Trustees of the American Med-
ical Association has authorized conference of
county medical society officers to be held Sun-
day, June 8th, at Atlantic City, prior to the
Centennial Session of the American Medical
Association. The purpose of this conference is
to bring attention to the problems of the various
localities and to promote exchange of informa-
tion on voluntary health insurance plans, hospi-
talization plans and improvement in medical fa-
cilities, rural health activities and of the various
bureau and council affairs of the American Med-
ical Association. It is hoped that several of the
Arkansas county societies will be represented at
this important meeting.

RANDOM THOUGHTS OF THE SECRETARY

December 27th. The Veterans Administration an-
nounces its plan to use osteopaths in the care of veter-
ans. We assume this is a right won because of the patri-
otic and unselfish service of osteopaths in the recent war.

January 7th. With the sparkling repartee of Jones and Chamberlain as we ride to Fayetteville to attend the Washington County meeting, an example for all county medical societies being set by but two absentees. Among other things, participating in a discussion of jaundice and assisting in the inauguration of President Richardson, who takes the heckling well.

January 9th. Again over highway 71, this time with Krock, McCullough and Martin to Rogers meeting with the Benton County group, discovering that Buckelew is cutting down on his day, now going to work at 7:45 A.M. instead of 6:30 as has been his custom.

January 12th. The plane being late, we drive to Little Rock noting that desirable improvement of resurfacing on U. S. 65 Little Rock to Palarm, meeting with the radiologists for a discussion of problems and thence homeward, accomplishing a complete traffic violation in driving all the way down Scott Street the wrong way, a traffic violation in Little Rock which Bob Robins could never perform without penalty.

January 16th. Comes another of those questionnaires addressed to "Dear Reader," this time seeking the opinion of physicians on the soap they recommend. Watch for the advertisement of umpty-thousand doctors who recommend BLANK'S Soap. We sometimes wonder why letters from medical societies go unanswered and all these questionnaires designed for advertising statistics get replies.

January 17th. Meeting tonight with the heads of state agencies concerned with medical care, their many problems brought forth, and thence by the late plane, delayed over Memphis because an army flier in the overcast maintained self-imposed radio silence, viewing Clarksville from 5,000 feet at midnight, a sight Earle Hunt has never had and, after all this, to bed earlier than Bob Robins, most likely still conducting the post-mortem with Euclid Smith and Chenault.

January 20th. By the airliner to Little Rock in 35 minutes, the fastest trip yet, and then to visit with the Stover establishment hearing two of those good ideas Bill Stover comes up with frequently and lunching with the Albert Pike professional group now overflowing to two tables but unchanged is Alan Cazort in his preference for chicken gumbo soup.

ORETON IN UTERINE BLEEDING *

FRED HAMES, M. D.
Pine Bluff

* Read before Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 17, 1946.

This is a preliminary report on the use of Oretone, or testicular hormone, in bleeding complicating pelvic cancer, and its use in certain cases of bleeding not of malignant origin. This report, I believe, will tend to remove the hesitancy of some to use the hormone in relatively large amounts for fear of hirsutism and voice changes. We have used this hormone over a period of four years, and to date neither of these complications have occurred in our series of more than 100 individuals to whom it was administered.

The hormone is administered in oil, deep in the muscles of the buttock, using an 18 gauge

needle. The amount given at one time varies from 25 to 100 mgms. Usually 25 mgms. are first given, and repeated three or more times in 24 hours until the bleeding is under control. The largest amount given one individual is 1400 mgm.

There is one side effect worth mentioning, and that is the relief of pain experienced in far advanced pelvic malignancy. We do not believe this to be psychic, and we are confident that it does relieve pain to some extent. It is being used in all of our cases of pelvic cancer in which bleeding is a complication. With one exception we have not had to resort to packing.

One of our first cases was a white woman of 42. Her uterus had been removed two years previously, and malignancy had occurred in the cervical stump. She has had both radium and X-Ray therapy to tolerance. When first seen she was hemorrhaging profusely, and it was found impossible to pack due to the extensive involvement of the vaginal walls. She was confined to the hospital for several months during which time we were able to control the bleeding entirely with Oretone.

The patient receiving the largest amount had a sub-mucous fibroid. Radium and X-Ray therapy were used without controlling the bleeding. Her general condition was such that surgery was impossible. 25 mgm. of the hormone at four-day intervals, together with transfusions, were given over a period of six months, at which time her condition had so improved that surgery was done.

We have had several cases in young girls and women in which there was excessive or prolonged menstruation. None of these have required in excess of 25 to 50 mgm. to restore flow and time to normal.

There was in our series one woman of 45 who had had both radium and X-Ray therapy without effect. Repeated injections of the hormone in this case did not control the bleeding, and surgery was resorted to. No pathology was found in the uterus, and we have no explanation for the failure in this case.

One individual, weighing in excess of 300 pounds, had continuous bleeding over a number of years. Intra-muscular injections were effective for only a few days. However, a 50 mgm. pellet imbedded in the thigh gave a perfect result for a period of six months.

The material for this research has been furnished by the Schering Corporation, and the study will be carried on, and a final report made later.

PROCEEDINGS OF SOCIETIES

Grant County Medical Society has elected the following officers: President, John W. Cole, Sheridan; Vice-president, O. W. Hope, Sheridan; Secretary-treasurer, Miles F. Kelly; Delegate, Miles F. Kelly, and Alternate, John W. Cole.

Pope-Yell County Medical Society has elected the following officers: President, Brooks Teeter; Vice-president, Arnold Henry, and Secretary-treasurer, W. O. Young; Delegates, Ellis Gardner and W. E. Ballenger; Alternates, W. O. Young and Kent Grace.

The Logan County Medical Society was re-organized at a meeting January 17th and the following officers elected: President, S. P. McConnell, Booneville; Vice-president, I. H. Jewell, Paris; Secretary-treasurer, A. B. Dickey, State Sanatorium; Delegate, S. P. McConnell, and Alternate, Rogers Hederick.

The Ninth Councilor District Medical Society was addressed December 6th by Ralph E. Crigler, Fort Smith, "The Importance of Routine Recto-Sigmoidoscopic Examination"; A. S. J. Clarke, Fort Smith, "Fractures"; "Disease of the Gall Bladder," Gilbert O. Dean, Little Rock, and H. Clay Chenault, Little Rock, "Needs of University Hospital and the Medical School."

J. G. Gladden, Secretary.

The Fifth Councilor District Medical Society met in dinner session at El Dorado January 14th for the following program: "The Management of Rheumatoid Arthritis," Euclid M. Smith, Hot Springs; "Cardiological Problems," E. Driver Rowland, Hot Springs; "Medical Education in Our State," H. Clay Chenault, Little Rock, and an address by President H. King Wade, Hot Springs National Park. Officers elected are: President, Joe F. Rushton, Magnolia; Vice-president, D. E. White, El Dorado, and Secretary, W. C. Magness, Camden.

Hempstead County Medical Society has elected the following officers: President, Jim McKenzie; Vice-president, James W. Branch; Secretary-treasurer, E. H. Wilkes, and Delegate, G. E. Cannon.

Cleveland County Medical Society has elected the following officers: President, J. H. Scroggin, Kingsland; Vice-president, S. C. Johnson, Kingsland; Secretary-treasurer, W. G. Hancock,

Rison; Delegate, W. G. Hancock, and Alternate, J. H. Scroggin.

Conway County Medical Society has elected the following officers: President, J. F. Halbrook, Morrilton; Vice-president, H. E. Mobley, Morrilton; Secretary-treasurer, C. Ray Williams, Morrilton; Delegate, C. Ray Williams, and Alternate, J. M. Matthews, Morrilton.

Independence County Medical Society has elected the following officers: President, J. J. Monfort; Vice-president, W. J. Ketz; Secretary-treasurer, W. Paul Gray; Delegate, Rector Hooper, and Alternate, W. J. Ketz.

Franklin County Medical Society has elected the following officers: President, W. C. Porter; Vice-president, E. W. Pillstron; Secretary-treasurer, W. H. Gibbons; Delegate, I. H. Jewell, and Alternate, W. H. Bollinger.

Faulkner County Medical Society has elected the following officers: President, C. A. Archer, Jr.; Vice-president, J. W. Sneed; Secretary-treasurer, I. N. McCollum, and Delegate, R. L. Taylor.

Miller County Medical Society has elected the following officers: President, J. Brooks Tate; Vice-president, R. R. Kirkpatrick; Secretary-treasurer, W. B. Harrell; Censor, R. R. Kirkpatrick; Delegate, Harry E. Murry, and Alternate, L. J. Kosminsky.

Lee County Medical Society has elected the following officers: C. W. Chaffin, Moro; Secretary-treasurer, Wm. C. Hays, Jr., Marianna; Delegate, C. W. Chaffin, and Alternate, Wm. C. Hays, Jr.

White County Medical Society has elected the following officers: President, Hugh R. Edwards; Vice-president, A. R. Brown; Secretary-treasurer, Sam J. Allbright; Delegate, Sam J. Allbright, and Alternate, Porter R. Rodgers.

Benton County Medical Society met in dinner session at Rogers January 9th for the following program: "Recent Advances in Orthopedics," Campbell McCillough, Fort Smith. Officers elected are: President, C. S. Wilson, Siloam Springs; Vice-president, Neil Compton, Bentonville; Secretary-treasurer, G. C. DeBolt, Rogers; Delegate, J. S. Thompson, Gravette, and Alternate, Geo. M. Love.

Garland County Medical Society has elected the following officers: President, Euclid M. Smith; Vice-president, H. K. Wright; Secretary-treasurer, W. A. Goodrum; Delegates, C. H. Lutterloh, E. Driver Rowland and G. C. Coffey, and Alternates, L. E. Reed, J. S. Stell and G. A. Hogaboom.

Boone County Medical Society has elected the following officers: President, J. G. Gladden; Vice-president, W. L. Watkins; Secretary-treasurer, H. V. Kirby; Delegate, D. L. Owens; 1st Alternate, W. H. Poynor, and 2nd Alternate, Ulys Jackson.

Little River County Medical Society has elected the following officers: President, Joe Shelton; Vice-president, Elmer Davis; Secretary-treasurer, Norman Peacock; Delegate, Joe Shelton, and Alternate, Elmer Davis.

The Washington County Medical Society met in dinner session at Fayetteville January 7th, W. J. Stocker presenting a case report of acute catarrhal jaundice complicating pregnancy with discussion by I. F. Jones and Chas. T. Chamberlain, Fort Smith.

J. W. Dorman, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro January 2nd for a symposium on "Pneumonia," the following participating: "Virus Pneumonia and Treatment," E. R. Barrett, Jonesboro; Lobar and Bronchial Pneumonia and Treatment," L. H. McDaniel, Tyronza; "Surgery in the Pneumonias," J. C. Faris, Jonesboro; "Eye, Ear, Nose and Throat Complications of Pneumonia," M. E. Blanton, Jonesboro, and "X-Ray and Physical Findings in Pneumonia," W. F. Shepherd, Jonesboro.

J. H. McCurry, Secretary.

Nevada County Medical Society has elected the following officers: President, O. G. Hirst; Vice-president, G. G. Hairston; Secretary-treasurer, J. W. Kennedy; Delegate, A. S. Buchanan, and Alternate, L. J. Harrell.

PERSONALS AND NEWS ITEMS

MARRIED—At Little Rock, January 15th, S. C. Fulmer and Miss Pauline Weaver.

The Central Surgical Company, 918 Main Street, Little Rock, is a new Journal advertiser

this month. The firm is headed by Melvin and Henry Spear who have been active in the surgical supply field in Arkansas for many years.

J. W. Kennedy, Prescott, has been appointed part-time venereal disease clinician, Arkansas State Board of Health, for Nevada County.

W. L. Shippey, Fort Smith, has been appointed part-time obstetric clinician, Arkansas State Board of Health, for Sebastian County.

H. E. Murry, Texarkana, recently took special work in gynecology and obstetrics at Tulane University.

Dr. and Mrs. J. F. John, Eureka Springs, celebrated their fortieth wedding anniversary January 17th.

Drs. Vincent and Ruth Ellis Lesh have moved into their office building at 221 North College, Fayetteville.

W. J. Ketz and D. E. White have been elected directors of Kiwanis Clubs at Batesville and El Dorado, respectively.

T. K. Mahan has moved from Blytheville to Denver where he will be associated with Paul R. Weeks in radiology.

B. A. Rhinehart, Little Rock, has been elected an associate fellow of the American College of Chest Physicians.

At a meeting January 12th, the Arkansas State Radiological Society elected D. A. Rhinehart, Little Rock, President, and Fred Hames, Pine Bluff, Secretary-treasurer.

Rector Hooper has been elected president of the West Side Kiwanis club at Batesville.

M. L. Skaller has returned to practice at Blytheville from prolonged stay at Corpus Christi.

Fellowship in the American College of Surgeons was conferred on John W. Harper, El Dorado; William B. Harrell, Texarkana; James G. Martindale, Hope, and Ralph E. Rowen, Little Rock, at the Cleveland session.

Robert W. Boyle, Little Rock, has been released from military service and is at the Mayo Clinic on a Baruch fellowship for a two-year period.

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WOMEN'S AUXILIARY NEWS

The Sebastian County Medical Society Auxiliary "is in sympathy with the work of the local Council for the spastic child, and will cooperate with the organization program," Mrs. J. S. Southard reported January 13th.

The women, at a luncheon meeting, January 13th, agreed to support the council after Mrs. Fred H. Frock, Auxiliary president, explained the council's principal objective is to promote an educational program emphasizing speech instruc-

tion and physical therapy. The council, organized in August, 1946, is engaged at present in a movement to obtain a training center in Fort Smith for spastic children.

Present for the meeting besides Mrs. Krock and Mrs. Southard were Mrs. A. A. Blair, co-hostess with Mrs. Southard, and Mrs. B. L. Ware, Mrs. D. W. Goldstein, Mrs. Coleman Thompson, Mrs. H. C. Dorsey, Mrs. C. T. Chamberlain, Mrs. M. E. Foster, Mrs. Stanley Gates, Mrs. Walter Eberle, Mrs. H. H. Smith, Mrs. A. F. Hoge, Mrs. I. F. Jones, Mrs. S. J. Wolfermann, Mrs. W. R. Brooksher and Mrs. S. P. Stubbs.

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No. 10

CANCER OF THE THYROID GLAND* (1).

J. HARRY HAYES, M.D.

Little Rock

Cancer of the thyroid gland constitutes one of the most interesting, as well as important, surgical lesions.

If the patient reports for consultation and examination early and the examiner understands the problem of malignancy in this organ, nearly every case should result in a cure. However, procrastination either by the patient or the examiner to the point where metastases has occurred, is conducive to an extremely gloomy outlook.

There are many lesions of the thyroid which might, on first impression, appear to indicate cancer. In most cases the history and physical findings should make clear, or contribute to, the true diagnosis.

Many differences of opinion exist regarding malignancy of this gland, especially in some of the finer points and even in the treatment.

There is nearly always a long period when the lesion could surely be cured while it is still a precancerous lesion, and with no discomfort or danger relatively.

There are some exact differences of behavior of carcinoma of the thyroid and carcinoma of other organs in general.

1. In no other organ do malignant tumors of epithelial origin generate so directly in a pre-existing benign tumor.

2. Malignant epithelial tumors of no other organ (except hypernephromata and chorio epitheliomata) exhibit such a high incidence of metastases through the blood stream.

3. In no other organ does the histologic appearance of the cells and tissues of a malignant growth so closely resemble the benign parent tissue in such a significant percentage of cases

The microscopic diagnosis of carcinoma of the thyroid gland is often very difficult, and the histological picture is not reliable. Of particular value is evidence of the invasion of the veins (2).

The etiology of malignancies of this organ is as obscure as the etiology of malignancies in general. Much experimentation in animals and observation in the human, however, has thrown light on the cancer problem. In experimental work cancer can be produced in the young as well as in the mature. In either case (in the instance of tar) it takes long continued irritation. Occupational cancer takes years for development.

In the light of this experimental work and these observations it would seem that cancer is not a disease of old age due to senility of tissues, but a disease that takes a long time to develop. It also points to malignancy being a local, rather than a systemic, disease. Heredity, familial tendency, trauma, the infectious theory and all the theories of cancer in general may apply to the thyroid. Cancer of the thyroid hardly ever occurs in the young. The precancerous lesions are often, in fact are usually, present over a period of years. The exact reason for the transformation from benignancy to malignancy is not known.

There are many classifications of malignancies of the thyroid. They may be conveniently divided into tumors of epithelial origin and those of connective tissue origin.

Crotti, quoting the Bernese pathologists, Langerhans and his pupils, lists under epithelial tumors:

1. Adenocarcinoma or proliferating goitre.
2. Carcinoma.
3. Metastatic colloid goitre.
4. Parastruma.
5. Post branchial goitre.
6. Papilloma.
7. Cancroid.

Under sarcomata, Crotti lists:

1. Fibrosarcoma.
2. Polymorphous-cell sarcoma.
3. Round-cell sarcoma.

*Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

4. Myosarcoma.
5. Endothelioma.
6. Perithelioma.
7. Osteogenic sarcoma.

Incidence of malignancies of the thyroid is extremely hard to determine, because many goitre sufferers never consult a physician while the majority of those with malignant goitre consult physicians eventually. The ratio of malignant goitre cannot be determined by autopsy, as too few autopsies are done. Some authors (Boyd) state that carcinoma of the thyroid is more common than usually supposed. In a series of 16,908 thyroidectomies at the Cleveland Clinic, malignant disease occurred in approximately two per cent of the cases. The incidence of malignancy in 26,974 goitres that came to surgery was found by Crotti to be roughly 0.93 per cent. In a series of 437 cases in Little Rock hospitals, records of which were compiled by the author, the incidence was .7 per cent (3).

Various reports on the incidence of malignancies, ranging from less than one per cent to as high as 10 per cent, have been published. There does seem to be a higher degree of incidence in endemic regions.

Often, the more experience the pathologist has had with examining thyroid tissue, the higher the incidence of reports of malignancies. The surgeon must come to know when he is dealing with malignant tissue. Quoting Ward: "Criteria of malignancy based on cytologic changes alone are notoriously unreliable. The invasive qualities of a tumor have to be recognized as the most dependable" (4).

The symptomatology of cancer of the thyroid depends upon how far the cancer has progressed and what structures have become involved. Although some authors are inclined to believe that the thyroid cannot definitely be diagnosed as cancerous unless there is invasion of the blood vessels, still everyone must realize that cancer must have a beginning and that surely cancer has been present before the veins become involved, whether it can be recognized microscopically or not. Myxedema, or hypothyroidism, is said not to be common in cancer of the thyroid. Thyrotoxicosis, or hyperthyroidism, is said by various authors to occur in about 50 per cent, or fewer, of the cases. The presence of thyrotoxicosis in cancer of the thyroid quite naturally in many cases would depend upon the observer of the case and his criteria for the judgment of

thyrotoxicosis. The majority depend upon the basal metabolic rate. It might also be added that the basal metabolic rate frequently lacks much in determining thyrotoxicosis.

In the small early cancer of the thyroid there may be no symptoms, whatever, except the tumor.

In nearly all instances of cancer of the thyroid, the patient has had goitre for years. Then the goitre becomes hard and begins to enlarge rapidly; the voice becomes rough, and respiration is interfered with. Swallowing becomes difficult. Interference of respiration and deglutition is due to the involvement of the trachea and esophagus.

When malignancy has reached an advanced stage, one or both inferior laryngeal nerves is nearly always involved. The one on the left side is more often involved than the one on the right, but both may be involved. The removal does not materially influence the immediate post-operative prognosis, especially when resection is unilateral (5). Accompanying dysphagia and difficult breathing, usually caused by the goitre alone, are made worse with the development of cancer. Shooting pains, especially toward the ear and along the cervical and brachial plexuses, are common. The cancer in rare instances may involve particularly the large veins; even causing fatal hemorrhages. In the terminal stages to be sure, even the skin is affected.

Diagnosis of cancer of the thyroid is extremely difficult in the absence of a tumor in the cervical region. Malignant and aberrant intrathoracic goitre is seldom thought of; however, X-rays in this instance are of great diagnostic aid. When a tumor of the thyroid is present in a middle-aged person and suddenly begins to grow and increases in hardness so that it interferes with respiration and deglutition, then the diagnosis becomes easy. In fact, those symptoms justify a diagnosis of cancer of the thyroid. Over 90 per cent of malignancies of the thyroid are of epithelial origin and, of these, nearly 100 per cent occur in nodular goitre. Therefore, nodular goitre is to be considered essentially a precancerous lesion.

"Treatment—there is only one treatment—the knife. All the other means are palliative measures only, and all are disappointing. Even the knife does not always fulfill its promises" (6).

Since we are dealing with a killing disease, and since the only cure is the removal of all the can-

cer cells, the surgeon's load is a great responsibility. His first duty is to recognize and remove completely all precancerous lesions of the thyroid, namely nodular goitres.

Thyroid surgeons have learned from experience that the entire goitrous thyroid gland in the adult can be removed without any deleterious effect. Surely in suspected malignancy, there is no place for timidity. If a goitre cannot be rotated so that the proper plane of surgical cleavage can be entered and adhered to, a nice thyroidectomy is impossible. At times also tetany will occur. The gland that is fixed must especially be regarded as cancerous and every effort should be made to remove all the involved tissues, even though some are relatively vital tissues. If all the cancerous cells are removed, a cure will follow. If any are left a fatal recurrence is certain. At that stage, nothing remains except resort to palliative measures.

It is the duty of the surgeon to preserve the life regardless of the patient's condition. Even though she may have tetany or may have to resort to the wearing of a tracheotomy tube, to survive.

The mortality rate depends upon the patients who should seek treatment before hoarseness and the like occur. Then responsibility rests with the physician, whether he be the family doctor or the surgeon. The thyroid surgeon may merit censure for procrastination.

Such remarks as, "So long as the goitre does not bother you, do not bother it"; or "If you have your goitre removed, it will kill you," denote a lack of understanding and knowledge and are unfair to a trusting and unsuspecting individual.

Usually salves, or some other inadequate treatment, goes along with such poor advice.

Deaths from cancer of the thyroid can be almost eliminated by a better educated public and the application of proper surgery.

1. Graham, Allen. *Diagnosis and Treatment of Diseases of the Thyroid Gland* (George Crile and Associates). W. B. Saunders Company, 1932, p. 313.

2. William Boyd. *Surgical Pathology*. W. B. Saunders Company, 1943, 5th ed., p. 204.

3. J. Harry Hayes. *Analysis of Thyroid Surgery*. Journal of Arkansas Medical Society, Sept. 1943.

4. Ward, Robertson. *Malignant Goitre Surgery*. C. V. Mosby Company, Nov. 1944, vol. V, p. 787.

5. Crotti, Andre'. *Thyroid and Thymus*. Lea & Febiger, 1938, p. 297.

6. Crotti, Andre'. *Thyroid and Thymus*. Lea & Febiger, 1938, p. 303.

INJURIES INVOLVING THE ACCESSORY NASAL SINUSES*

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Anatomical

Quoting in part from Gray's Anatomy (1) (page 134):

"The frontal sinuses are two irregular cavities which extend backward, upward and lateralward for a variable distance between the tables of the skull; they are separated from one another by a thin septum, which often deviates to one or the other side, with the result that the sinuses are rarely symmetrical. They are absent at birth but well developed after puberty. They are larger in men than in women. They are lined by mucous membrane, and each communicates with the corresponding nasal cavity by means of a passage called the fronto-nasal duct."

Of the ethmoid (2) (page 150) he states: "The labyrinth or lateral mass (of the ethmoid bone) consists of a number of thin walled cellular cavities, the ethmoid cells, * * *, arranged in three groups, anterior, middle and posterior, and interposed between two vertical plates of bone; the lateral plate forms part of the orbit, the medial part of the corresponding nasal cavity."

In describing the sphenoids (3) (page 145), it is stated: "On either side of the crest of the sphenoid is an irregular opening leading into the corresponding sphenoidal air sinus. There are two large irregular cavities, hollowed out of the interior body of the bone and separated from one another by a bony septum, which is commonly bent to one or the other side. They are seldom symmetrical, and are often partially subdivided by irregular bony lamina. Occasionally, they extend into the basilar part of the occipital nearly as far as the foramen Magnum. They are partially enclosed in the front and below, by two thin curved plates of bones, the sphenoidal conchae, leaving in the articulated skull a round opening at the upper part of each sinus by which it communicates with the upper and back part of the nasal cavity, and sometimes with the posterior ethmoidal air cells."

The maxillary sinus, or Antrum of Highmore,

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Editorial note: Lantern slides and roentgenograms presented could not be satisfactorily reproduced in the Journal.

by volume, makes up the greater portion of the body of the superior maxilla. It is lined with a continuation of the nasal mucosa, having ciliated columnar epithelium as a lining membrane. Its function is physiologically a resonator. Its shape is rather pyramidal, with the apex, inferior-medially.

Its medial wall makes up a part of the lateral wall of the nasal cavity, and its superior portion makes up a part of the floor of the orbit. The lateral wall is, externally, the facial surface of the maxilla. The medial and superior walls are frequently incomplete.

The base of the cavity is generally smooth, but projections of the maxillary teeth, from molar to cuspids, may cause knob-like projections into the floor.

In close proximity to the walls of the antrum are the infra orbital nerves and vessels, anteriorly; the naso lacrimal duct, which lies in the medial wall, and the anterior and middle branches of the maxillary division of the 5th nerve, which lie in, or run along the inferior surface, somewhat laterally. Of primary importance is the fact that the normal opening of the antrum into the middle meatus of the nasal cavity lies $\frac{1}{8}$ to $\frac{1}{2}$ inch above the medial floor of the antrum, thus making a trap, from which free drainage can only be obtained by rotation of the head downward, to the opposite side.

Group Types of Injury

The types of facial injuries seen may be roughly divided into three groups, according to causative factors, i. e.:

1. Those caused by smooth surface projectiles; pistol, machine pistol, rifle, and machine gun bullets.

(a) Injuries about the maxilla of class A type usually show a small point of perforation or entry. On the opposite side, if not contacting bone, the high velocity smooth missile will usually show a similar wound of exit. However, those which strike bone most generally produce an explosive wound of exit, with loss of bone substance and soft tissue.

Those bullets which have practically spent their force are frequently found lying partly protruding through the cheek and outer wall of the sinus, or within the sinus, or perforating the sinus, the nasal cavity, and septum of the nose, as illustrated by X-ray films 1 and 2.

The tracts of these bullets are easily followed, and recovery of the foreign bodies is readily

accomplished through the wound of entry, unless there has been penetration of the cranial vault. There is frequently little damage to adjacent tissues.

Fragmentation of small arms missiles occurs occasionally without severe face damage. An example of a 25 cal. pistol bullet fired at close range, entering the face in A.P. direction with both particles lodging loosely in the antrum is shown in films 3 and 4.

2. Those caused by minute metal fragments; booby traps, and land mines.

b. Injuries produced by booby traps and land mines complicate the picture by penetrating wounds of the entire face, with perforating wounds of one or both eyes, perforations of both frontal and maxillary sinuses, evulsed areas of skin covering, marked tattooing of remaining skin surface, and multiple fractures of the bones of the face.

3. Those caused by larger shell fragments; mortar, artillery, or bomb fragments.

a. From the cases seen throughout the African, Italian (including Anzio), and French campaigns, the most destructive wounds of this portion of the body have mortar and artillery shell fragments as the predominating cause; produced by the single, large, or several small, sections of shell.

In these instances the size of the missile does not necessarily stand in direct proportion to the amount of tissue damage. Many rather insignificant metallic pieces have been seen to have made a small, irregular wound of entry, but by virtue of their sharp margins and rapid rotation, they have literally evulsed the opposite side of the face. If the force is spent and they lodge in the face, there is still an excessive amount of tissue maceration. Contrasts of these conditions are seen in films 5, 6 and 7.

Films which would show massive evulsion, as has been seen on three instances, are not available.

Frontal, Ethmoid, and Sphenoidal Sinuses

These are grouped together because of their relative infrequency. The associated problems of these injuries falls within the treatment province of four services, neuro-surgical, E.E.N.T., maxillo-facial, and dental, and in the majority of cases two or more services have been represented in the handling of all such cases in this instillation.

Injuries to the upper part of the face demand

the frequent removal of foreign bodies of all descriptions from the cranial vault. With the compounding and comminution of such associated fractures, there are dural tears resulting in spinal fluid leak, some of which may be overlooked due to persistent bleeding and oozing from the area involved. With simpler basilar fractures the fluid may stop within 48 hours. One case has been followed, in which there was leakage for a period of 14 days which finally sealed without surgery, or post-injury complications. Careful X-ray and neurological studies are indicated in each case.

Minor anterior-posterior wounds of the frontal sinuses which do not penetrate the cranium, are illustrated by films 8 and 9. In this case the metallic foreign body carried with it into the sinus, a section of helmet liner, which as early as four days, had caused a marked thickening of the lining membrane. The removal of this fragment was accomplished by enlargement of the wound of entry through the eyebrow.

Fractures extending through the sphenoid sinuses and ethmoid cells, with rupture through the cribiform plate of the ethmoid, may give rise to intracranial infection, and rarely, a traumatic pneumocephalus. The surgical treatment of such wounds frequently necessitates the use of pericranial or fascia grafts to repair the dural defect.

In mild cases without much tissue loss, the sinuses may be debrided, without complete stripping of the mucosa. The area may then be closed, incorporating a small strip rubber dam drain which is allowed to remain for 24 hours. In more severe cases, drainage may be established into the nose before closure, by the use of sections of tubing from plasma sets.

As the size of the wound increases, it may be necessary to raise laterally attached forehead flaps, or sliding flaps, for advancement over the defect, repairing the donor area with split skin grafts at the same operation.

The toilet of the cavity before closure consists of debridement of the area of all blood clots, foreign bodies, and loose bone chips, the accomplishment of hemostasis by hot packs, swabbing with 1 cc. of penicillin (10,000 units), and the application of a few crystals of sulfanilamide.

It should be kept in mind that all reconstructive surgery has been delegated to the Zone of the Interior, and only the surgical intervention

necessary to make the patient a suitable transportable case over the long chain of evacuation, is planned under these conditions.

Relatively few cases have been seen involving the sphenoid and ethmoid sinuses. The same principles of treatment have been used, recognizing that dependent drainage or positional drainage already exists. In the absence of fluid leaks, lightly placed fine mesh medicated packs may be introduced for a 24 to 48 hour period.

It is recognized that in many of the transverse fractures of the maxilla produced by external direct injury, other than foreign body penetrations, both the sphenoid and ethmoid sinuses are involved, but it is not necessary to intervene surgically, other than to immediately reduce and fix the maxilla.

Maxillary Sinus

These constitute the larger series of cases. The injury may vary from the small eggshell-like buckling of the lateral walls, with or without hemorrhage into the cavity, to complete evulsion of the entire section of the face, including the nose and both eyes.

The majority of the latter type of injuries seldom reach the fixed instillation. Only three cases have been seen in five months.

X-ray examination may not show the fracture into the wall of the sinus, but with the history of such injuries as has been described, with cloudiness of the antrum, it is felt advisable to cleanse and drain the cavity. The earlier this procedure is done, the better the end results. It is a procedure to be encouraged in primary instillation surgery.

In complete perforation of the cavity, it is feasible to cleanse and debride through the wound of entry, if large enough, so long as efficient nasal drainage can be established by the same route. In the tract which is in a direct anterior-posterior position, it is advisable to surgically prepare nasal drainage by radical operation, before closure of the original wound. An illustration of perforation of the right face and antrum by an extremely small metallic fragment is seen in film 10.

In the presence of retained foreign bodies it is sometimes better to use the oral approach to the antrum to minimize facial scar.

Illustrations of small foreign bodies entering the antrum, through a very small wound, and re-

maining in the antrum are seen in films 11 and 12.

Illustrations of shell fragment perforating the right cheek and antrum in a partially edentulous maxilla, are shown in films 13 and 14. The foreign body seen in the left temporal region lies beneath the scalp.

As the wounds increase in size, with associated disruption of maxilla and zygoma, it has been found that utilization of the rupture through the lateral wall has afforded ample entry for internal antral packs as well as reduction of the fractured zygoma.

It should be stated that in every instance of collapse of the lateral wall, an effort should be made to digitally mold this wall into anatomical position, and support by packs for a short period of time. The pack for accomplishment of nasal drainage is usually sufficient.

No attempt will be made to discuss the methods of fixation of these fractures. Reduction and fixation of maxillary and mandibular fractures by either elastic traction or direct wiring, as the case demanded, has been concurrently accomplished; the time of operation determined by the total amount of injury and the planned amount of surgical interference. Coordinated dental assistance is of maximum importance.

Conservation of all bone structure about the face, unless definitely unattached, should be the rule in these cases.

The approximation of skin and subcutaneous structures for closure should be done as early as possible making allowance for drainage for the dependent areas of the skin as well as the sinus.

Problems of congenital anomaly, polyps, etc., are omitted.

The application of this principle of surgery does not reduce the efficiency of later prosthetic dentures, which may become necessary as a secondary procedure in reconstructive planning.

Surgery

The surgical approach to the antrum which is of general interest to the dental officer, has been given the name of "radical antrum" operation or Caldwell-Luc procedure. Actually the operation is a modification of the original Caldwell-Luc which called for a turning in of the mucosa of the inferior meatus of the nasal cavity.

This entry through the canine fossa gives ample room for the removal of fractured root frag-

ments, which has a not infrequent habit of and suction by the assistant keep the field clear.

plagueing the most careful of oral surgeons. As an emergency procedure to remove root fragments it may be done under local or block anesthesia, in a dental chair. In complicated face injuries with other severe involvements, the optimum procedure is under endotracheal anesthesia in the operating room.

After anesthesia is obtained, and the area carefully packed off, a horizontal incision is made in the superior gingival margin of the mucobuccal fold, extending from the region of the first molar tooth to the cuspid area of that side, cutting down through the periosteum. With a broad periosteal elevator, the periosteum and tissues of the cheek are reflected superiorly for approximately one-half inch. Cheek retraction

By small straight chisel and mallet, an opening is made in the lateral wall of the antrum, well above the estimated roots of the bicuspids. This opening is then enlarged by bone biting forceps, moving cautiously toward the inferior margin, and extending anteriorly and posteriorly, as guided by the evident size of the antrum as the work progresses.

After sufficiently enlarging the opening, full view and access may be afforded to the entire antrum, unless complicating transeptal problems are encountered. Cleansing of the antrum, debridement, removal of foreign bodies, hemostasis, and introduction of the index finger for purposes of anatomical alignment of the lateral walls, may be accomplished.

Except in some instances which involve excessive hyperplasia of the lining membrane, or new growths, no attempt is made to dissect out the mucosa of the entire cavity. Only that portion directly associated with the injury is removed. The use of such dental equipment as the Cameron Light or its modifications is a valuable aid in this procedure.

Upon completion of the major surgery to the antrum, a perforation is made in the inferior medial wall about midway of the sinus, by sharp instrument or hemostat. This opening is enlarged to a size between one-fourth and one-half inch, which usually would be expected to stay patent about six weeks.

Through this opening the forward end of a small fine-mesh nasal pack about 12 to 18 inches in length, previously annointed with sulfadiazine

ointment or iodoform paste, is introduced into the nasal cavity, and by forcep brought out to the nasal aperture. The distal end of the gauze is then packed lightly into the posterior part of the antrum in such a manner that the gauze can be withdrawn through the nose without balling up. Recently it has become a custom to mop out the cavity with one cc. of penicillin (10,000 units) and introduce a few crystals of sulfanilamide before introducing the pack.

The oral opening is then closed with interrupted fine black sutures, usually requiring about 8 to 10, to definitely seal off the antrum from the mouth. If the problem has been post extractive, an alveolectomy is done and the gingiva closed with mattress suture.

It has not been found to be necessary to use extre-oral pressure dressings against this area of the cheek.

In the presence of excessive nasal bleeding, it may be advisable to insert a second nasal pack along the medial border of the existing antral pack, back to the area of perforation of the medial wall of the antrum.

Both packs are removed at the end of 48 hours, and the patient is given definite instructions not to blow his nose for a period of three or four days, under any circumstance. Most patients understand, and cooperate well.

Usually following removal of the packs, there will be some bleeding and oozing for a short period. The patient is instructed to roll his head so that the operated side is up, and allow the free drainage of blood.

The oral sutures are removed after the 8th day.

No irrigations of the antrum are done before the 10th to 12th day and then only if there is free pus evident.

Post-Operative Complications

Post-operatively it is possible that empyema of the antrum may still develop in badly lacerated wounds, but with the use of ample quantities of the sulfonamides, and the added use of routine penicillin therapy of 25,000 units every 3 hours for a period of 5 to 7 days, these cases should be minimal in character, if the cleansing of the antrum has been complete. Early irrigations may be done through the nasal window if indicated.

Osteomyelitis of the maxilla is a possibility,

but again the chemotherapy and penicillin offer added protection.

Perforation through the mucco-buccal fold incision may happen with a resultant oro-antral fistula that will require secondary surgery. All cases operated have been entirely sealed on discharge from this hospital; unless the evulsing wound itself precluded such a possibility. The case observed the longest period of time post-operatively in this instillation covered 7 weeks. Recovery was complete.

Summary

1. A brief review of the anatomy of the accessory nasal sinuses is given.
2. Discussion of acute and chronic sinus conditions other than traumatic are omitted.
3. A classification of group types of injuries is discussed, with X-ray illustrations of some of the typical cases.
4. A discussion of the handling of such cases is given.
5. The value of efficient coordination between neuro-surgical, E.E.N.T., maxillo-facial, and dental services is shown.
6. The technique of the so-called Caldwell-Luc operation is described; and post-operative complications discussed.

CORRESPONDENCE

To the Editor:

On December 19th, we wrote you advising of the Medical Slyd-Rul being distributed by the Ciba Pharmaceutical Products, Inc., to physicians throughout the United States.

A sample of the Slyd-Rul was sent to you for your own use. Perhaps you are one of many who have already noted an error in the computation: placement of decimal point of the conversion from 0.4 grain to gram. This point should read 0.025 gram, not 0.25 gram.

We are extremely anxious to circulate this information in order that all doctors who receive the rule will be aware of the mistake and advised that a corrected slide will be sent as quickly as possible.

Your kindness in publicizing this in your editorial columns will be greatly appreciated.

Ciba Pharmaceutical Products, Inc.,
Summit, N. J.

SURGICAL EXPERIENCES WITH VASCULAR DISEASE*

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Vascular diseases have received increasing attention in recent years because of improvements in methods for their management and diagnosis. A more helpful prognosis may frequently be offered largely due to more effective measures and elaboration of surgical procedures for their control. Among the more common vascular diseases which deserve surgical consideration are varicose veins; thrombophlebitis; and thrombo-angitis obliterans. The latter, by no means rare, is increasing in frequency. Its diagnosis is most difficult in early stages.

Varicose veins are most common. They exist in all degrees of severity. Most important in their management is the question as to which cases deserve active treatment and which should be let alone or denied active treatment. The term active treatment is used to denote injection therapy or ligation of veins. There are certain conditions under which active therapy is contra-indicated. Among these conditions are the following:

1. Varicosities of minor extent where cosmetic effect only is desired.
2. Varicose veins in the presence of obstruction of deep veins.
3. Varicose veins during pregnancy.

Very often young women with small intracutaneous varicosities—little 'spider web' ectasias—wish to have them treated 'because they look so bad.' In the type of case under discussion there are no really large varicosities and those found are unaffected by the Trendelenburg test. Cosmetic improvement cannot be offered these women. The proper answer regarding their request for improvement is that it cannot be obtained either by injection of sclerosing solutions or by ligations. Their veins are not severe enough to justify ligations and injection of sclerosing solutions leaves at best a brownish discoloration which is cosmetically as much a blemish as the intracutaneous varicosities. These

women should be encouraged to accept the insignificant changes they have in their veins, which are in reality inconspicuous except to themselves.

Superficial varicose veins in a leg previously the seat of deep vein thrombosis should be given careful consideration. Too often a mistake is made of injecting these varicosities and this almost always results in an indurated area and increases the post thrombophletitic oedema. The rule is almost invariable that whenever there is a history of previous deep vein thrombosis, ligations and the use of sclerosing solutions are contra-indicated. The Comparative Tourniquet test (Mahorner-Ochsner Test) will disclose the insufficiency of the deep veins for carrying the return circulation. Rarely have the deep veins opened sufficiently after previous thrombosis that any physiologic improvement may be expected from a superficial vein ligation. But if such is the case only ligation without sclerosing solution is acceptable.

Varicose veins during pregnancy are often severe. They infrequently regress remarkably after parturition even to the extent of return of competency of some incompetent valves. I have tried ligations during pregnancy but the recurrences are always so extensive in the later months that I have discontinued all active treatment at that time. If the varicosities are severe enough the patients are instructed to wear Lastex stockings below the knee to interrupt the period of time their legs are dependent by interval rests in bed once or twice during the day. I ask their obstetrician to have them return two months after the birth of the baby for re-evaluation of their varicose veins. Many of them who had severe varicose veins during pregnancy have inconspicuous ones at the second examination.

The varicose veins for which ligations accomplish the most decided improvement are the large tortuous ectatic saphenous veins with numerous rope-like tributaries on the leg. When these are found a high ligation at the fossa ovalis and usually a segmental resection above the internal condyle will produce a dramatic result. Where to ligate may best be determined by the comparative tourniquet test (Mahorner-Ochsner). The basic ligation is always high at the fossa ovalis. Additional lower ligations or resections may be indicated depending on the incompetency of the valves of communicating veins.

*Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

Severe varicose veins of the lower extremity should always be treated by ligations or ligations and injections. Injection of sclerosing solutions without ligation rarely has a sustained good effect and more often than not the patient is better off without any treatment than with the injection treatment alone.

Thrombo-angitis Obliterans

Thrombo-angitis obliterans is far more common than is usually presumed. It is frequently overlooked since the subjective and objective characteristics upon which the diagnosis may be established are not widely known. A definite history of intermittent claudication is not always elicitable. Often a story of tired feeling in the calf of the leg on walking or a history of pain in the foot—in the instep or metatarsals—especially at night, is the predominant thing as far as the patient is concerned. Objectively most characteristic is the color of the foot—the purplish red discoloration, erythromelia, which is not found to the same extent in any other disease. When it is marked the diagnosis of thrombo-angitis obliterans may be made on the color of the foot alone. Also important objective findings are quick blanching on elevation of the feet, and a tardy return of color when they are replaced in dependency. Following this there is a reactionary rubor. In other words the feet become more intensely reddish purple than before they were elevated. To establish the diagnosis of thrombo-angitis obliterans both pulses must be out in at least one foot. In roentgenograms of legs, vessels affected by thrombo-angitis obliterans do not cast shadows; those affected by arteriosclerosis to any appreciable extent do show in roentgenograms. Thus when gangrene or impending gangrene is present it is always possible by this means to differentiate thrombo-angitis obliterans from arteriosclerosis of the Monckelburg type. Arteriosclerosis of sufficient severity to produce gangrene of a toe always may be demonstrated roentgenographically. Arteriosclerosis of diabetes may not cast a shadow.

The basis of therapy in thrombo-angitis obliterans is to improve the arterial circulation. To prevent vasospasm smoking should be discontinued. Mild amounts of alcohol are not undesirable though it is doubtful whether it is beneficial enough to insist upon its use. The efficiency of drugs such as pancreatic extracts and spleen extracts have as yet to be proved with certainty; and induced febrile reactions such as produced by intravenous injections of typhoid bacilli is now

a primitive type of therapy. Rest and restricted activity is always indicated. Pavex treatments at times help, especially when the patient affords his own machine. Many other therapeutic measures are not measured.

One of the most effective measures in the treatment of thrombo-angitis obliterans is temporary or permanent interruption of the sympathetic nervous system by paravertebral nerve blocks or removal of the chain and ganglia. In my experience this is so effective that the diagnosis of the condition in a patient under 55 years of age is alone indication for lumbar ganglionectomy. In the relatively early case the results are remarkable. I have seen patients who could walk no farther than two blocks before sympathectomy attain a distance of over ten blocks without muscle cramps after surgery. These cases are true thrombo-angitis obliterans with both pulses in at least one foot.

The results of sympathectomy are not dependent only on the release of vasospasm; they are due in large part to the opening up of collateral vascular channels untouched by the disease and also to the interruption of pain conduction sympathetic fibers. The latter factor undoubtedly gives the patient much relief from rest pains which are such a disabling feature of the disease. In older individuals careful vascular tests are much more essential to estimate the resiliency of the vessels. I place more importance on skin temperature elevations after paravertebral blocks and clinical improvement in walking after paravertebral blocks than on any changes in oscillations in the oscillometer. Careful clinical observations is more important than instrument readings. Regardless of limited rises in skin temperature of less than one degree Fahrenheit after paravertebral block ganglionectomy may give an excellent clinical improvement, even the post-operative temperature rises may be predicted very accurately by studies of skin temperature before and after paravertebral block. The release from severe rest pain is the most grateful relief such a patient may have. They can avoid claudication pains by not walking. They cannot obviate the rest pains by voluntary restrictions; indeed the rest pains are the most disabling part of the disease.

Thrombophlebitis

Thrombosis of the deep veins of the lower extremity following operation or parturition may lead to persisting disability. The immediate results are prolonged morbidity and even danger

of death from embolism, a fact which may be over-emphasized in some papers whose authors apparently fear it much more than the unmentioned even greater danger of severe lifelong disability from persisting oedema and pain.

Many new therapeutic and surgical measures have been introduced to combat this complication in its early and late stages. In the early stages I prefer paravertebral nerve blocks, heparin and occasional surgical evacuation of the clot and ligation. I have no confidence in dicaumeral since I have seen a patient develop a clot at a new site while under its influence and with less than 50 per cent prothrombin time. It may be of value but it is not without danger and I am not convinced by the reports I have read which advocate its use.

Heparin may stop the propagation of a clot and sometimes in a very sick patient is of decided benefit. It will not dissolve a clot already formed. In this manner hirudin when available in synthetic form will be the most perfect drug for this condition. It not only prevents clotting; it also dissolves clotted blood by putting the fibrin back into solution without injuring the cells. It has long been surprising to me why the synthesis of hirudin is not worked out by some drug house.

Ligation of the deep veins for thrombosis with the idea of preventing grave embolism is used very widely now and sometimes it may be carelessly and indiscriminately used. It is my opinion that it cannot be used with impunity since it always leaves either a manifest or latent oedema. It has been my policy not to ligate every deep vein because of thrombosis but only those in cases where signs of embolism have appeared and in order to prevent a secondary graver pulmonary embolism. In massive thrombosis with extensive oedema of the leg removal of the clot is justified, with the hope of reducing the subsequent obstruction and post-thrombophlebitic oedema which otherwise may be marked. Reported series of deep vein ligations seldom attempt to compare the amount of persisting oedema after ligations with that in a similar series of cases without ligations. Justification of ligation or evacuation of the clot and ligation on an unconvincing statistical basis, of saving lives by preventing embolism, is not so impressive as showing that such procedures greatly reduce morbidity and persistent disability from swelling and pain. If it can be shown that evacuation of the clot and ligation greatly reduces the disability from persisting oedema, then the procedure

would be indicated regardless of whether it saved a life once in a long, long time.

Late residuals from deep vein thrombosis are very distressing and very hard to improve or control. It seems inane to say that prevention is the best treatment. I have the opinion that early ambulation will prevent many of these complications but they occur and neglected untreated cases offer a real problem to the patient and surgeon. Proper care of the acute stage is important in mitigating the permanence of symptoms. When a patient has a deep vein thrombosis I always tell them they will not be entirely well for six months to a year and emphasize the necessity for interval rests during the day so they may learn the necessity of staying under the oedema level while the circulation is re-establishing itself.

When a patient presents herself in a late stage with post-thrombophlebitic oedema and possibly an ulcer I usually use repeated paravertebral blocks, several times over a period of a week. Some external support such as a lastex stocking is advised, and the patient is taught the necessity of interrupting the period of time they are on their feet by midday bed rest of one-half to one hour. As long as the leg swells daily the intercellular spaces remain open and each day oedema recurs more easily than under circumstances which prevent the daily recurrence of oedema. If the patient stays under the oedema level, he seems to develop more resistance to the accumulation of oedema and ultimately the return circulation seems to improve.

Sympathectomy for post-thrombophlebitic oedema in my experience has given disappointing results. It usually mitigates the pain but the oedema and tendency to ulceration is not greatly influenced. Rarely, especially in young people, is it indicated. Veinolysis, freeing of the vein from perivenous scar, may be more advantageous than transverse section of the femoral vein in the late stage. I have had no experience with the latter procedure. These cases are seldom hopeless and frequently something may be done to improve the condition. Too infrequently it is regarded as a hopeless state for which nothing can be done.

Summary

In viewing certain aspects of three common vascular diseases: varicose veins, thrombo-angitis obliterans, and deep vein thrombosis, I have expressed some of my own views regarding diagnosis and treatment.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

MANY family physicians with long experience have entertained more than a mere suspicion that individuals belonging to certain families show relatively little resistance to infection with the tubercle bacillus. Now statistical evidence to support such an observation has begun to accumulate. This is of practical importance to both physicians and health officers since a case of tuberculosis in such a family calls for an intensification of all protective measures if spread of the disease within that family is to be prevented.

SPREAD OF TUBERCULOSIS IN FAMILIES OF TUBERCULOUS PATIENTS

A tabulation of the family records of patients with active tuberculosis under the supervision of the Los Angeles County Health Department has uncovered some surprising facts regarding the susceptibility of the members of certain families to the spread of this disease.

The figures show that nearly all of the new cases originate in a comparatively small proportion of the families exposed. These susceptible families deserve earnest study. Preventive measures within them can be successful only as they are directed toward the major elements of spread. What these elements are is still unknown. A family is a complex unit, exhibiting characteristics, traits, and habits that have been in operation for generations. Even though the faults of these families may not be easily corrected, if they can be defined so as to be recognized, they can be made the object of intensive health supervision. If tuberculosis is to be prevented among them, these families must have larger proportions of the tuberculosis prevention budget than is ordinarily allotted to them.

It is characteristic of tuberculosis in Southern California that it is concentrated in a few comparatively congested areas, inhabited chiefly by families in the low income brackets. Here many conditions favor the spread of disease. In planning surveys and applying special preventive measures, tuberculosis attack rates must be given careful consideration. Local surveys in Los Angeles with a house-to-house canvass in poor neighborhoods have detected five times as much active pulmonary tuberculosis as has been found by the same amount of effort expended in other types of surveys. More information about the reasons for spread in the homes where tubercu-

losis thrives is urgently needed. In these homes, the wage-earner, all other adults and the older children must be examined.

Crowded living quarters constitute a major fault. In spite of improvement, economic conditions must still be considered a factor. Although thousands of these families have moved to modern housing projects and many have been earning big wages, too often they have reverted to old living habits within the new dwellings. These habits have been gradually molded into characteristics that will require long and painstaking efforts to change.

In 1940, the Los Angeles County Health Department analyzed the family records of all the cases of active reinfection type tuberculosis. All cases found in the family within six months of the time that the first case in the family was diagnosed in the clinic were regarded as original cases. Only those detected thereafter were considered new cases whose infection was presumably due to exposure during the period of observation. Contacts with no active tuberculosis were not included in the tabulations unless they had been under observation six months or longer.

There were 506 families with 595 original cases and 1,637 other persons exposed. There were 135 new active cases developing among these exposed persons, or 8.25 per cent. Of these, four were active nonpulmonary, 45 were active primary and 86 active reinfection type pulmonary tuberculosis. In other words, slightly more than five per cent of the 1,637 contacts developed active reinfection type pulmonary tuberculosis six months or more after the discovery of the first known case in each of the respective families.

This data covers experience during the latter

half of the 1931-1940 decade, during the worst years of the depression. Now, four years later, the present active cases have been analyzed, eliminating the families previously tabulated. Unquestionably, there was improvement in the economic status of these families. There was less cause for congestion within the home, and with better living conditions and improved nutrition there should have been less likelihood of the spread of infection. The average number of months of exposure of contacts was also less, because of improvement and extension of the isolation technique. In spite of all this the results show that the justifiable prediction of a lower attack rate would be in error. In 431 families with 1,264 contacts, 60 cases of active reinfection type pulmonary tuberculosis developed among the contacts, or an attack rate of 4.75 per cent. This is very little lower than the rate found in the previous survey.

The hazard in these families with this high attack rate is apparently not only due to the direct spread of the infection, but to other conditions favoring the spread. There must be some inherent fault either in their physical or their mental make-up which makes the members of these families more susceptible than the average person; or there may be contributory domestic habits unchanged by the usual public health education and supervision.

Conditions in other families in similar communities were found to be quite different. The X-ray surveys previously mentioned were carried on in the most congested parts of these same areas, and 22,000 persons examined showed an attack rate of 0.5 per cent. The greater tendency to spread in certain families, in comparison with other families, is demonstrated by the fact that in families having more than one case, even where no positive sputum can be found, there is a high attack rate.

With this high attack rate in certain families, it would seem justifiable to isolate outside of the home every active case occurring in a family with a history of considerable tuberculosis. The effectiveness of such a ruling was shown in a small neighborhood where nine deaths occurred in eighteen months. An arbitrary edict was issued that no active case would be permitted to remain at home in that neighborhood. This stopped the spread and there have been no new cases. In another district, where there were a number of ex-sanatorium, chronic, advanced, communicable cases it was found possible to isolate within the homes with extra assistance. This

procedure was found to be effective in stopping the spread of infection. In this type of family isolation is essential. The cases found should not be permitted to remain at home unless considerable material assistance is available and intensive supervision is supplied.

Spread of Tuberculosis in Families of Tuberculous Patients, P. K. Telford, M.D., and Ruth Garten-White, M.D., *American Review of Tuberculosis*, March 1946.

RESOLUTION

On August 5th, the Ouachita County Medical Society and the entire medical profession of the state, was bereaved by the loss of one of its most unique and beloved members in the death of Dr. J. P. Clemens of Stephens, Arkansas. We, the Ouachita County Society, wish to pay tribute to his memory.

We, his colleagues, are grateful that we were permitted to know, and work with him. His honesty to those who came under his care, his loyalty to organized medicine, his hate of any hypocrisy, and his characteristic outspoken criticism against anything he felt to be unfair, was an inspiration to his co-laborers.

In recognition of his character and worth to the field of medicine, he was honored with the presidency of both his county and district medical societies.

Therefore, be it resolved that the Ouachita County Medical Society express its appreciation for his services, and be it further resolved that we express our sympathy to Mrs. Clemens and the children, that a copy be sent to them, that a copy be spread on the minutes of the Ouachita County Medical Society, and that a copy be sent to the Secretary of the Arkansas Medical Society.

J. B. Jameson, C. S. Early, B. V. Powell,
Resolution Committee.

IMPORTANT NOTICE: RE MEDICAL SLIDE-RULE ENCLOSED IN DECEMBER ISSUE OF CIBA SYMPOSIA

Due to manufacturers' error in placement of decimal point, conversion from 0.4 grain to gram is incorrect. It should read 0.025 gram, not 0.25. Please make correction by replacing present celluloid table with corrected temporary paper table now being mailed to you.

Ciba regrets this error which causes you inconvenience, and will replace the temporary slide with a new celluloid table as soon as possible.

THE JOURNAL

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*Deceased.

EDITORIAL

5,000 QUESTIONNAIRES GO TO DOCTORS WHO WERE IN CIVILIAN PRACTICE

Charging 5,000 physicians, chosen at random, with their professional responsibility and humanitarian duty to answer a questionnaire on their civilian experience, the February 15 issue of The Journal of the American Medical Association states that this information will be used to determine "how the medical profession can best serve our population . . . in the event of a future national emergency."

The Journal editorial follows:

"In the event of another war the provision of medical care for civilian population might be just as vital to victory as care of the men in the armed forces. New methods of war strike at industrial areas. The medical profession is wisely attempting to prepare now the facts and recommendations needed for any such future emergency. Recently 5,000 questionnaires have been sent to physicians, selected at random, who were in civilian practice during the war just ended. On the basis of the answers to these questionnaires, sent out by the Committee on National Emergency Service of the American Medical As-

sociation, facts may be developed as to how the civilian population was served in World War II. The questionnaires also provide an opportunity for those who were responsible for civilian care in those years to indicate what changes should be made in the mobilization of medical service in future emergencies. Five thousand questionnaires represent a small percentage of the total number of physicians who remained in civilian practice. Dr. Edward L. Bortz of Philadelphia, chairman of the Committee on National Emergency Service, has appealed to every physician receiving the civilian questionnaire to respond promptly. The accuracy of the facts obtained and the soundness of the conclusions made by the study will be determined to a great degree by the cooperation which those receiving the questionnaire give the committee.

"The committee received excellent cooperation from the 50,616 former medical officers who were mailed questionnaires last December on their experience in military service. These are now being analyzed and studied. The facts obtained will be used as a basis for recommendations to be made by the committee to the House of Delegates in June. With the cooperation of the 5,000 physicians who are now receiving questionnaires on their civilian experience, the committee will be able to complete the total study of how the medical profession can best serve our population, civilian and military, in the event of a future national emergency. Every physician who receives one of these questionnaires has a professional and humanitarian duty to perform in completing it and returning it promptly. It is preferred that each sign his name, but if anyone wishes to remain anonymous, he may do so. A broad representation of facts, experiences and opinions will add to the scientific value of the results."

PRENATAL BILL NOW LAW

The State Board of Health is calling on professional and lay groups for help in putting into effect plans to control congenital syphilis. These plans have been made possible by passage in the 1947 Legislature of a law requiring the taking of a standard blood test for syphilis as a routine part of the doctor's examination of pregnant women.

With the passage of this law, Arkansas joins thirty-six other states which have taken legal steps to control the ravages of congenital syphilis, a disease as easily preventable as typhoid or

smallpox, two former killers over which we now exercise extremely effective control.

Congenital syphilis is prevented by the early diagnosis and treatment of syphilis in the mother. Eight times in ten, mothers with untreated syphilis will bear diseased or dead babies. On the other hand, nine out of every ten syphilitic mothers will bear healthy babies if treatment is begun before the fifth month of pregnancy.

While the law does not require treatment, it is believed that the doctor will urge treatment and the mother will want it, once the presence of the disease is shown.

The Health Department recognizes that such a program cannot be expected to succeed on the basis of compulsion. It will need the help and cooperation of not only the medical profession and other groups attending pregnant women but of the whole public. Therefore, the accomplishment of the objectives of this legislation really depends on the education of the public concerning the causes of congenital syphilis and the importance of diagnosis and treatment. The help of all interested persons and groups is solicited.

—Arkansas Health Bulletin, February, 1947.

THE ARKANSAS PREPAYMENT PLAN

With the approval of the House of Delegates at the Special Session January 26th, preliminary work has been completed in the formation of a prepayment hospital, surgical and obstetrical care plan for the citizens of Arkansas under the sponsorship of the Arkansas Medical Society and the Arkansas Hospital Association. By approval of these organizations, it has been decided that a commercial type of prepayment plan will best serve the needs in Arkansas. To activate the plan, two groups of six members each, to serve staggered terms, have been appointed to serve on the Joint Advisory Council. These appointees will select four additional members from the general public. Appointees from the Arkansas Medical Society are: Chas. R. Henry, Little Rock; Ellery C. Gay, Little Rock; Alan G. Cazort, Little Rock; P. W. Lutterloh, Jonesboro; R. C. Dickinson, Horatio, and Chas. T. Chamberlain, Fort Smith. Appointees from the Arkansas Hospital Association are Mr. John Rowland, Little Rock; Rt. Rev. Msgr. John J. Healy, Little Rock; Dr. M. C. Hawkins, Jr., Searcy; Mr. Marvin Altman, Fort Smith; Miss Regina Kaplan, Hot Springs National Park, and Mr. John Gilbreath, Little Rock. Mr. E. L. Wright, Little Rock, continues as legal counsel for the committee. Upon selection of the four members from the public, this

committee is authorized to open negotiations and sign a contract with the insurance company which offers the best proposition.

The success of this undertaking, once inaugurated, depends upon the whole-hearted and enthusiastic support and the assistance of the members of the medical profession, hospital administrative staffs and the general public.

ACADEMY INTERNATIONAL OF MEDICINE

Members who receive promotional letters from the Academy International of Medicine with offices at Topeka, Kansas, are urged to write the state secretary before taking steps to join this organization.

RANDOM THOUGHTS OF THE SECRETARY

January 16th. Meeting with the Pulaski County Committee on Arrangements to perfect plans for our first excursion into a big-time medical meeting at Little Rock's Auditorium this April with assurances that everything will click. Observing the advisory committee on prepayment plans also in session today, the first of many ahead of this hard-working group.

February 4th. To another of the Goldstein-sponsored programs of the county society where Heller explains the relationship between intelligence, education and sex life, giving an insight into the situation which some of us had need to know, if but as an escape mechanism.

February 17th. Attaining the small boy ambition in me today of riding up front with the pilot and initiated, in some slight degree, in the mysteries of radio navigation and the operation of the DC-3 as we cruise along at 5,000 feet, Tulsa to Joplin. Returning tonight by Missouri Pacific whose Pullman carries a full load, there being none of the mass fear which now seems to prevail over air transportation on the more familiar rails.

RESOLUTIONS

Whereas it is common knowledge that conditions in the Arkansas State Hospital for the Insane have not met certain desirable standards in recent years because of overcrowded conditions, lack of personnel and funds rendered inadequate by the rising cost of living and

Whereas it is stated publicly that patients at the said State Hospital have lacked adequate medical care due to crowding of facilities by persons devoid of psychosis, therefore

The Board of Directors of the Arkansas Economic Council-State Chamber of Commerce hereby resolves to support and cooperate with the Legislature and the state administration in finding sufficient funds to alleviate such conditions at the State Hospital either through provision of additional facilities, or increased operating budget, or both.

January 29, 1947.

PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro February 6th for the following program: "Anesthesia," W. E. Berry, Jonesboro; "Postoperative Complications," E. J. Stroud, Jonesboro, and "Uses of Penicillin and Other Combative Drugs," R. C. Shanlever, Jonesboro.

J. H. McCurry, Secretary.

The Sebastian County Medical Society was addressed February 4th by J. R. Heller, U. S. P. H. S., on "The Romance of Syphilis."

J. K. Thompson, Secretary.

Chicot County Medical Society has elected the following officers: President, E. P. McGehee, Jr.; vice-president, B. E. Barlow; secretary-treasurer, M. K. Bottoroff; delegate, B. E. Barlow, and alternate, H. W. Thomas.

Columbia County Medical Society has elected the following officers: President, T. H. Jones, Waldo; vice-president, T. E. Souter, McNeil; secretary-treasurer, John H. Wilson; delegate, W. H. Horn, and alternate, Paul Sizemore.

Arkansas County Medical Society has elected the following officers: President, T. S. Van Duyn; vice-president, Milton John; secretary-treasurer, W. T. Champion; delegate, S. A. Drennen, and alternate, R. H. Whitehead.

Crittenden County Medical Society met at Earle January 27th for a steak supper as guests of the members at Earle. The Society discussed building a hospital in the territory. Guests were F. L. Husband, Blytheville, and A. W. Oliver, Memphis.

R. H. Ray, Secretary.

Randolph County Medical Society has elected the following officers: President, W. O. Loftis; vice-president, W. E. Hamil; secretary-treasurer, M. A. Baltz; delegate, J. R. Loftis, Jr., and alternate, W. E. Hamil.

Johnson County Medical Society has elected the following officers: President, W. R. Scarborough; vice-president, Geo. L. Hardgrave; secretary-treasurer, G. R. Siegel; delegate, J. M. Kolb, and alternate, W. R. Scarborough.

The Ouachita County Medical Society met in dinner session at the Camden Hospital February

Desha County Medical Society has elected S. B. Moss, president, and Geo. M. Webb, secretary-treasurer.

6th. The following program was rendered: Motion picture, "Managing Fresh Wounds of Violence"; "Recent Developments in the Diagnosis and Treatment of Anemias," Wallis Cull, Little Rock, and "History of Folic Acid," John Totter, Little Rock. Plans were made for a meeting May 1 to honor Dr. J. S. Rinehart on his 50th anniversary of practice.

R. B. Robins, Secretary.

Cross County Medical Society has elected the following officers: President, R. L. Hickman, Hickory Ridge; vice-president, T. A. Peterson, Wynne; secretary-treasurer, J. W. Lamb, Wynne; delegate, Thos. Wilson, Wynne, and alternate, A. F. Barr, Cherry Valley.

Ashley County Medical Society has elected the following officers: President, J. T. Wood, Fountain Hill; secretary-treasurer, W. A. Regnier, Hamburg; delegate, W. A. Regnier, and alternate, J. T. Wood.

PERSONALS AND NEWS ITEMS

The Mack Wilson Hospital, Monticello, has been purchased by Drs. J. B. Holder, Robert F. Hyatt, Jr., C. Lewis Hyatt and J. P. Price, Jr.

J. C. Gladden, Harrison, has been released from military service and is serving a residency at University Hospital, Little Rock.

L. J. Kosminsky, Texarkana, attended a national conference of medical advisers to state departments of the American Legion at Washington during February.

S. James Estes, formerly of Little Rock, has located at Fordyce.

Ralph E. Crigler has been re-elected president of the Boys' Club at Fort Smith.

Thomas G. Johnston, Russellville, has been called to active service and is stationed at Fort Benning, Georgia.

The Dr. Ira W. Ellis Memorial Committee has been formed at Monette and will accept funds for the purchase of a memorial organ in the

church he served for many years as superintendent of the Sunday School. Contributions should be made to Mrs. O. B. Howard, chairman, Monette.

J. F. John has been elected a director of the Bank of Eureka Springs.

J. B. Elders has moved from Walnut Ridge to Harrisburg.

Fred H. Krock, Fort Smith, attended The Society of University Surgeons meeting at Boston in February.

Hoyt R. Allen, Little Rock, and D. B. Stough, Hot Springs National Park, attended the recent meeting of the Mid-West Proctological Society in New Orleans.

George C. Burton, formerly of Bald Knob, who has served a residency at the University of Iowa Hospitals, has opened an office for the practice of radiology at 303 North West Avenue, El Dorado.

H. T. Smith, McGehee, was elected vice-president of the Mid-South Postgraduate Medical Assembly at its recent meeting in Memphis.

Robert W. Ratton, Manila, has been called to active duty as Lieutenant, Medical Corps, Naval Reserve, and is assigned to Naval Dispensary, Sampson, New York.

Chas. H. Lutterloh, Hot Springs National Park, as president, presided over the recent meeting of the Mid-South Post-Graduate Medical Assembly in Memphis.

J. W. Branch has opened a 16-bed hospital at Hope.

The Arkansas State Cancer Commission has established a full-time office at the State Health Office, Little Rock, and it is requested that all communications for the attentions of the Commission be now so addressed.

PHYSICIAN WANTED

Interested in a small town hospital.

Write DR. O. J. KIRKSEY

Mulberry, Arkansas

OBITUARY

JAMES COLBY BLACKWOOD, age 87 years, Eureka Springs, died January 22nd. A graduate of Memphis Hospital Medical College in 1892, he had practiced at Western Grove for many years prior to removal to Eureka Springs in 1945. He was elected to honorary membership in the Arkansas Medical Society at the 1944 annual session. Surviving relatives are his wife, two sons and three daughters.

IRA W. ELLIS, age 59, Monette, died January 27th. A graduate of Memphis Hospital Medical College in 1912 he had practiced at Monette for 30 years, had served as vice-president of the Mid-South Postgraduate Medical Assembly, as vice-president of the Arkansas Medical Society and was president of the Craighead-Poinsett County Medical Society for several terms. He had been superintendent of the Methodist Sunday School for 15 years and had been a member of the Board of Stewards and of the Board of Trustees for many years. He was a former worshipful master of the Monette Masonic Lodge, a former worthy patron of the Order of the Eastern Star and had been a worthy grand patron of the Arkansas Grand Chapter, Order of the Eastern Star. He served with the Army Medical Corps during World War I and held a reserve major's commission at the time of his death. For a number of years he was a member of the Monette School Board. Surviving relatives are his wife, a son and two daughters.

WILLIAM D. FREEMAN, age 83, Mount Ida, died February 3rd. Born in Georgia, he moved to Arkansas in 1899 and graduated from the University of Arkansas School of Medicine in 1899. He was a member of the Methodist church and of the Masonic lodge and was an honorary member of the Montgomery County Medical Society and of the Arkansas Medical Society. During World War I he served on the Selective Service Board and also had served as county health officer. Surviving relatives are two sons.

SHELBY JUSTUS, age 66, Swifton, died February 16th. Born at Evening Shade, he first practiced at Smithville and moved to Swifton a number of years ago. Surviving relatives are his wife, two daughters and a son.

PROCEEDINGS OF THE SPECIAL SESSION OF THE HOUSE OF DELEGATES, ARKANSAS MEDICAL SOCIETY

Hotel Marion, Little Rock, Arkansas
January 26, 1947

The meeting was called to order at 10:40 a. m. by President Wade.

The Credentials Committee (L. H. McDaniel, H. T. Smith) reported that the credentials of the delegates had been examined and found correct and that a quorum was present.

The Secretary called the roll of delegates. The following delegates were present:

ARKANSAS—S. A. Drennen; ASHLEY—W. A. Regnier; BENTON—Geo. M. Love; BOONE—D. L. Owens; BRADLEY—W. J. Hunt; CHICOT—J. H. Burge; CLEVELAND—W. G. Hancock; COLUMBIA—Paul Sizemore; CRAIG-HEAD-POINSETT—J. H. McCurry, L. H. McDaniel; CRAWFORD—S. D. Kirkland; CRITTENDEN—L. C. McVay; CROSS—A. F. Barr; DESHA—H. T. Smith; DREW—J. P. Price, Jr.; GARLAND—G. C. Coffey, Chas. H. Lutterloh, E. Driver Rowland; INDEPENDENCE—Rector Hooper; JEFFERSON—Virgil Payne; JOHNSON—G. R. Siegel; LAWRENCE—J. C. Land; LINCOLN—C. W. Dixon; LOGAN—S. P. McConnell; MILLER—H. E. Murry; MISSISSIPPI—F. L. Husband; MONTGOMERY—J. E. B. Stueart; NEVADA—A. S. Buchanan; OUACHITA—J. R. McAlister; POPE-YELL—Ellis Gardner; PULASKI—Hoyt R. Allen, E. J. Easley, John R. Roberts, Ellery C. Gay, Chas. R. Henry, Henry G. Hollenberg; RANDOLPH—J. R. Loftis, Jr.; SEARCY—H. J. Hall; SEBASTIAN—F. H. Krock, D. W. Goldstein; SEVIER—R. C. Dickinson; UNION—E. J. Munn, M. V. Russell; WASHINGTON—F. Sisco; WHITE—S. J. Allbright. Other members of the House of Delegates in attendance were President Wade, President-Elect Evans, Councilors M. C. Hawkins, Jr., M. C. Crandall, J. H. Wilson, R. C. Dickinson, Euclid M. Smith, Ellery C. Gay, J. G. Gladden and Earle H. Hunt, Past-Presidents S. J. Allbright, H. Fay H. Jones, L. J. Kosminsky, M. L. Norwood, D. A. Rhinehart, R. B. Robins, Jos. F. Shuffield and H. T. Smith, and Secretary Brooksher.

Chas. R. Henry, Chairman of the Committee

on Medical Service and Public Relations, came to the rostrum and introduced the following members of the joint committee who were also seated on the rostrum: Ellery C. Gay, Alan G. Cazort, Homer A. Higgins, Mr. John Rowland and Mr. E. L. Wright. Chairman Henry expressed appreciation to each of these for contribution in the work of the committee and also expressed thanks to the committee from the Arkansas Hospital Association who worked with the committee from the medical society. Chairman Henry then read the report of the Committee on Medical Service.*

The report of the Committee on Public Relations and Medical Service to the Council of the Arkansas Medical Society was sent to every member of the Arkansas Medical Society, and I know that all of you are thoroughly familiar with the contents of this report.

Since this Committee was appointed in April, 1946, every effort has been made to thoroughly study and analyze the field of health insurance to the best of our ability. Following the mandate of the House of Delegates, counsel—legal, business and sociological—was obtained. Your Committee has winnowed out the best of hundreds and hundreds of policies, contracts, plans, programs and even schemes, and has given you our studied conclusion. We realize that it leaves much to be desired and that it is a compromise on the highest level of what is

A. Theoretically desirable,

B. Feasible or workable from a practical standpoint.

This program does not in any way alter the practice of medicine but it is aimed at paying bills in full or in part. This program does preserve the individual concept of medical practice and insures treatment to the largest possible number of the population of our state. This program is a vehicle which will effectively forestall legislation forcing socialized or government control of medicine. Our action is in keeping with the desire of the American Medical Association protecting states rights and developing our program and not one devised by a bureau in Washington.

The final draft of the report as you now have it is the composite result of study by numerous individuals who evolved a unanimous plan out of divergent views. We had in our own family circle of the combined committees, yielding on points, change of plan, conciliation of views, compromise of ideas, yet the most outstanding feature of these months of work was the unani-

*The original report of the committee is printed as an Appendix to the Proceedings in this issue.

mous approval of this program. The Council of the Arkansas Medical Society heard and unanimously approved this program on December 15. The Arkansas Hospital Association approved this program on the 20th of December. The hospital angle of the program is entirely satisfactory to this body and they simply await the action of the House of Delegates before proceeding.

This is a happy occasion for your Committee. We have come to the polls, so to speak. Every physician in the state has received a copy of the report and all of you who are delegates have digested it and are thoroughly familiar with all the phases of the report. The Committee realizes that just as voting for an amendment each man has an idea of wording here or change of phrase there, but in the final analysis, the voter casts his yea on the amendment as it is written. It would seem unwise to re-hash many phases of the program which the Committee has labored over during the past eight months.

In the pressure of assembling this printed material two typographical errors occurred:

(a) Page 3, column 2—midway of page with the sentence beginning "Both the Hospital Contracts, etc." should read ambulatory and NOT emergency.

(b) Last page, column 2—midway of page with the sentence reading "Treatment for refraction, etc." should end with congenital anomalies. There should be an amplification of what was understood but not too well expressed concerning the following medical specialty benefits: X-ray Service, Use of Radium, Clinical and Pathological Laboratory Service, Electro-cardiograms, Basal Metabolism.

A separate paragraph may be inserted in the health service certificate reading:

"The Insurance Company will pay the expenses actually incurred for the following: X-ray Service, Clinical and Pathological Laboratory Service, Electro-cardiograms, Basal Metabolism examinations, Anaesthesia—but not to exceed \$10 in major surgical operations and \$5 in minor surgical operations."

Payment can be made by the insurance company to whoever renders the service: to the physician, to the hospital, or jointly to the physician and hospital according to their own wishes. This will obviate the hospital in the light of practicing medicine and place medical specialty benefits in their proper category.

The surgical benefits as listed are a composite of the plans offered in the country. There are discrepancies to be sure, but this is a workable

plan for a beginning program. The Committee will work with the insurance company in establishing equitable reimbursements and will work to liberalize benefits and contracts as the program develops.

Your Committee comes to you with a report which we hope will meet with the approval of the House of Delegates. We now ask your approval of the program as it now stands and power to proceed with development of this program. The Committee will accept individual ideas or suggestions given to them for working out the program with the insurance company.

Respectfully submitted,

Charles R. Henry, Chairman,
H. A. Higgins,
Alan G. Cazort,
Ellery C. Gay,
B. L. Moore,
P. W. Lutterloh.

A motion (McDaniel-Land) was offered to adopt the report of the committee with thanks for their work.

General discussion of the proposed plan followed. S. A. Drennen asked how the \$5 daily hospital rate was obtained.

John Rowland answered that the hospital contract would pay the hospital its regular rate. Plasma and blood alone were excluded, he said, because payment for these items would seriously hinder replenishment of the blood banks. The hospital contract would pay the actual hospital billing for a patient in a room with more than one bed, the patient having a \$5 credit on any other room service he may desire.

H. T. Smith inquired as to Section 4 which restricts medical benefits to hospitalized patients only, stating that many of such patients could be cared for as well at home and that this plan would eliminate the physician who cannot attend patients in a hospital. Earle Hunt stated that the rural practitioner felt that he was being left out in this plan.

Chairman Henry called attention to the recommendation of the House of Delegates at the 1946 meeting which called for "a limited medical service, if possible." The committee realizes that this is not the perfect solution.

H. A. Higgins said that experience had shown the impossibility of providing a complete medical service under a prepayment plan. M. L. Norwood stated that he was not satisfied with the medical care provision and wondered how Arkansas hospitals could take care of the increased

number of patients this plan would cause to seek admission.

Others speaking in disapproval of the medical care provision were J. C. Land, S. P. McConnell, L. J. Kosminsky and F. L. Husband.

G. R. Siegel admitted that this was a fine effort and stated that the rural doctor would not be hurt. Such a plan will not do the job the Murray-Wagner-Dingell bill is said to do and will not reach the rural resident. Johnson County had a prepayment plan, which the doctors found was used principally by those able to pay the costs of their care and was not used by the fellow who really needed it. The Johnson County plan was comprehensive. It did not work.

D. W. Goldstein said that a number of the members were not fully familiar with the plan. He said he was not only opposed to Section 4 but he did not believe the Society should indorse any one insurance company. All companies should write the plan. He asked what will happen if the plan does not make a profit for the insurance company? He said we have had experience with a company cancelling out on such a program. He voiced his appreciation of the work of the committee but felt that further intelligent discussion was needed and that, of the commercial type plans, he thought that of Wisconsin was best.

Earle Hunt felt that the Arkansas Medical Society should operate the plan.

Goldstein, in reply, stated that he did not know about that; such a plan was not under discussion today. He felt that all acceptable insurance companies should be permitted to write the plan.

John Rowland stated that he did not feel that the Arkansas Hospital Association should indorse any one commercial insurance company and it was his opinion that the Arkansas Medical Society would feel the same way. He felt that to have a number of companies endeavoring to cover the field would be suicidal for the plan and stated that the Wisconsin plan was having trouble at this time, and that Wisconsin is now endorsing a non-profit plan as the best way to meet the diversification of commercial interests. Under the proposed plan an equal number of representatives from the Arkansas Medical Society and from the Arkansas Hospital Association would elect four additional committee members from the general public, and this group would then invite all insurance companies licensed in the state to submit their proposals under the proposed contracts. From the submitted proposals

the committee would select the proper company, giving full consideration to all the factors involved. This would provide for initial competition of all companies, thus assuring the best rate and aid in the development of the program.

H. Fay H. Jones stated that the plan did not cover everything but it is a step forward. The plan may later be liberalized with additional benefits.

A. S. Buchanan said that he did not know which side he was on in the discussion. He felt that the committee was to be commended. He called attention to the need for compromise as has been done on the Hill-Burton bill, to the fact that people are against the medical profession because it fights socialized medicine. He said he would be opposed to this plan if he thought that there would be no further efforts to socialize medicine. He stated that he, too, disapproved Section 4 but did not feel that this was as bad as many of you think. He said: "Let's do something about this program."

By motion (Robins-Euclid Smith) the House of Delegates recessed at twelve noon until 1:30 p. m.

The House reconvened at 1:30 p. m., President Wade presiding.

A substitute motion (Norwood-Kosminsky) was offered, adopting the report of the committee, eliminating Section 4 which is referred back to the committee for further study.

R. B. Robins asked the reasons for opposition to Section 4.

Earle Hunt stated that this motion would still not care for the boys "up the creek."

Chas. R. Henry stated that it is agreeable to the committee to eliminate Section 4; that a workable program would remain; and that Section 4 might later be added or omitted as experience dictated.

D. W. Goldstein suggested that some members might wish Section 4 retained.

A motion (Goldstein-Gardner) to table was lost.

The substitute motion was then put by the President and prevailed by a vote of 45 to 6.

The Secretary then read the proposed enabling act to permit the State to qualify for funds under the Hill-Burton hospital construction act and to license hospitals. General discussion was held on this proposed legislation.

By motion (Steuart-Kosminsky) the legislation was indorsed with the proviso that there be five doctors appointed on the advisory council, mem-

bers of the staff of the Arkansas State Board of Health excluded.

Ellery C. Gay discussed the present operation of the Emergency Maternal and Infant Care Program administered by the Arkansas State Board of Health.

By motion (Gay-Murry) the Society expressed its disapproval of a continuance of the EMIC program and the Secretary was instructed to notify the Arkansas State Board of Health of this decision.

R. B. Robins presented recommendations of the Advisory Committee to State Institutions.

1. Advise the Governor and the Legislature of the Society's appreciation of their interest in behalf of the State Hospital for Nervous Diseases.

By motion (Robins-Stewart) this recommendation was adopted.

2. Offering a resolution to all Arkansas members of the Congress asking their immediate action to locate the proposed Little Rock Veterans Hospital in the immediate vicinity of the University of Arkansas School of Medicine.

By motion (Robins-Murry) this recommendation was adopted.

3. Expressing approval of the action of the Board of Trustees of the University of Arkansas in placing the appropriation for the University of Arkansas School of Medicine in the general appropriation for the University of Arkansas.

By motion (Robins-Shuffield) this recommendation was adopted.

By motion (Shuffield-Murry) the House of Delegates gave a rising vote of thanks to the Committee on Medical Service and Public Relations for their work on the prepayment care plan.

L. J. Kosminsky spoke on the registration law.

By motion (Gay-Hunt) the House of Delegates adjourned sine die.

APPENDIX

SUMMARY OF THE REPORT OF THE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS OF THE ARKANSAS MEDICAL SOCIETY

Concerning: Prepayment Hospitalization, Prepayment Surgical, Obstetrical and Medical Service Plans for the People of Arkansas

In April, 1946, Dr. King Wade, President of the Arkansas Medical Society, appointed the

following to the Committee on Medical Service and Public Relations: Dr. Charles R. Henry, Chairman; Dr. H. A. Higgins, Dr. Alan G. Cazorl, Dr. Ellery C. Gay, all of Little Rock; Dr. B. L. Moore, El Dorado; Dr. P. W. Lutterloh, Jonesboro, and the late and beloved Dr. S. A. Thompson of Camden.

The House of Delegates charged this Committee to carry out these recommendations:

(1) That with due precaution a prepayment medical service plan be established in Arkansas, covering hospitalization, surgical, obstetrical, minor office surgery, emergencies in the home and, if possible, a limited medical service, looking to the inclusion of a more complete coverage from time to time as experience and statistical data warrant.

(2) We further recommend that a committee be appointed to work out satisfactory plans for the State of Arkansas, calling in such outside help as hospital administrators, actuarial experts, insurance executives and legal advisors as may be necessary, and that this committee be empowered to put into effect any plan or plans developed at the earliest possible moment after acceptance by the council and adoption at a called meeting of the House of Delegates.

Mr. Edward L. Wright, of Little Rock, was appointed as legal counsel to the committee because of his vast experience in the field of health insurance.

In May, 1946, the Arkansas Hospital Association appointed a committee to study the possibility of inaugurating a prepayment hospital service plan. The two committees realizing that close cooperation between physicians and hospital administrators was essential to the development of such a program, merged to form a joint committee and have conducted practically all of this investigation together. We are satisfied today that the spirit of cooperation which has obtained between the two groups at all times has contributed much to what we consider the success of our investigations and it has been made apparent to us on a number of occasions that without such cooperation any studies that the committees might have conducted separately would have been incomplete and would have failed to secure data which one or the other of the larger groups would have considered pertinent.

During this period we have personally interviewed the following individuals:

Mr. Louis H. Pink, President and Chairman of

the Board of The Associated Hospital Service, New York City;

Dr. C. Malone Stroud, St. Louis Medical Society Public Relations Committee;

Dr. Carl Vohs, President of Missouri Medical Service;

Dr. Wm. Thompson, St. Louis Medical Society, Committee on Medical Economics;

Dr. C. Rufus Rorem, Executive Director, National Blue Cross Committee;

Mr. James F. Cowan, Field Director, Blue Cross Commission;

Mr. George W. Cooley, Council on Medical Service and Public Relations, American Medical Association;

Mr. Howard Brower, Council on Medical Service and Public Relations, American Medical Association;

Mr. John R. Mannix, then Director of Chicago Plan for Hospital Care and Chairman of National Blue Cross Commission, now President, John Marshall Insurance Company;

Mr. Everett W. Jones, Technical Consultant, Modern Hospitals Publishing Company;

Mr. Maurice Norbey, Commission on Hospital Care, American Hospital Association;

Dr. Lon Morrey, American Dental Association;

Mr. W. R. Bethel, Auditor and Acting Director of Oklahoma Hospital Service and Oklahoma Physician's Service;

Mr. Wm. S. McNary, Director, Colorado Medical Service, Colorado Hospital Service;

Mr. W. F. Dean, Regional Director, Texas Blue Cross Plans;

Mr. John F. Hunt, Foote-Cone and Belding of Chicago, Public Relations Counsel;

Mr. J. M. Gunn, Pyramid Life Insurance Company;

Mr. W. N. Stannus, Secretary, Pyramid Life Insurance Company;

Mr. Herbert Thomas, President, Pyramid Life Insurance Company;

Mr. Aubrey D. Gates, Associate Director, University of Arkansas, Agricultural Extension Service;

Mr. Ray McCarthy, Director, Missouri Hospital Service and Medical Service;

Dr. John Pastore, Director of Greater New York Hospital Council;

Mr. Waldo Frasier, Executive Secretary, Arkansas Farm Bureau, Federal;

Dr. Lippert S. Ellis, Dean of the College of Agriculture, University of Arkansas;

Mr. Steele T. Kennedy, Regional Health Specialist, Farm Security Administration;

Mr. J. P. Anderson, State Director, Farm Security Administration.

Practically all of the foregoing have been met with two or more times.

In addition to these personal interviews, extensive correspondence has been carried on with: Mr. E. B. Crawford, Executive Director, Hospital Savings Association of North Carolina;

Mr. Paul McCarthy, Missouri Hospital and Medical Service;

Mr. W. R. McBee, Director, Texas Blue Cross Plan;

Mr. John J. Vance, Colorado Hospital and Medical Service;

Mr. R. D. Lawrence, Colorado Hospital and Medical Service.

Many commercial health insurance contracts and all Blue Cross Hospital Service contracts were studied. A survey was made of the 84 medical society sponsored medical service plans now in operation.

Because of the problems (a) of raising original funds for operation (estimates varied between \$20,000 and \$50,000), (b) the initial high cost of administration during early periods of operation, (c) time involved for members of the profession necessary for adequate supervision of plans, (d) the difficulties of providing adequate benefits on nation-wide basis, (e) hardships resulting to participants where member physicians and hospitals are not available for rendering of service and (f) the conviction of many that persons in the professions should not conduct large financial undertakings competitively with private business where the latter provides adequate service in that field, your committee has decided not to recommend a so-called non-profit plan. An additional reason for favoring a private insurance coverage is the fact that any effort to form a non-profit service corporation would likely be met with either a test litigation or retaliatory legislation (involving additional cost), either of which would question the right for a so-called non-profit corporation to operate under existing laws.

Your committee feels that private insurance companies can and will provide the lowest cost and most widespread coverage in Arkansas for hospital, surgical and medical coverages. There has been a marked trend in recent years for companies writing life insurance, casualty insurance, and health and accident insurance, to operate more widely in the fields we have under

consideration and there is definite evidence of continued expansion in this respect.

We feel it is our obligation to prescribe a type of coverage which is most desirable for the people of Arkansas and to ask all private insurance companies licensed in Arkansas to bid competitively on such coverage in this state. It is our further recommendation that we give our endorsement to that company which best meets the required tests of financial stability, integrity of management and ability to aggressively sell the coverage in all counties of Arkansas.

For the development of the program, your committee favors the organization of a joint committee with the Arkansas Hospital Association composed of 6 members from the Arkansas Medical Society, 6 members from the Arkansas Hospital Association and 4 members from the public at large. These members should be appointed for 6 years of staggered terms. This committee shall have full power and authority to act for the Arkansas Medical Society and the Arkansas Hospital Association in drawing up a blueprint of hospital, surgical, obstetrical and medical contracts (or coverages) which shall be presented to the various companies licensed to write insurance in Arkansas and interested in this field for bids. This committee shall be the sole judge of the company selected to develop this program. It would cooperate with such approved insurance carrier in the formulation of more liberal contracts, policy on handling of claims, rates and the like.

Your committee therefore recommends that competitive bids from all insurance companies licensed in Arkansas be requested on the following minimum benefits:

(It must be borne in mind that your Committee realizes that this is not the perfect contract and that it is necessarily a compromise of many views. As a practical matter, this is what we considered the best contract in the light of all circumstances.)

I.

COMPREHENSIVE HOSPITAL SERVICE CONTRACT

Hospital benefits. Thirty days of hospital service for the hospital benefits listed below and 50 per cent of these benefits from the 31st to the 120th day of hospital service:

Room rental in a room containing accommodations for 2 or more patients, including meals,

special diets, infant feedings, and general nursing service.

(Private Room—If a Certificate Holder or a Dependent desires private room accommodations, the Company should pay an amount not to exceed \$5 per day during the first 30 days of Hospital Service and \$2.50 per day during the 31st to 120th day of Hospital Service, both inclusive, in addition to paying the amount of expenses actually incurred for items of hospital care listed below.)

Operating room services available for surgical procedures, including cystoscopy, delivery, casts and treatment room service, anaesthesia supplies and their administration by a salaried employee of the hospital.

X-ray service.

Use of radium.

Clinical and pathological laboratory service.

Electrocardiograms.

Basal metabolism examination.

Use of physical therapy apparatus.

Oxygen.

All drugs, biologicals, sera (including streptomycin, penicillin) and solutions, except blood or blood plasma, which are listed in the United States Pharmacopoeia (XII), the National Formulary (6th edition), and the New and Non-Official Remedies (1944).

Gauze, cotton, fabrics, solutions, plaster, and other materials used in dressings and casts.

II.

STANDARD HOSPITAL SERVICE CONTRACT

An alternate contract to the above hospital benefit contract would be one that would provide an allowance of \$3 per day toward the room rental for the first 30 days of hospital care and an allowance of \$1.50 for the room rental from the 31st to the 120th day. In addition to the allowance for room rental contract should provide \$30 toward the expense of the following hospital services:

Operating room services, available for surgical procedures, including cystoscopy, delivery, casts and treatment room service.

Anaesthesia supplies and their administration by a salaried employee of the hospital.

X-ray service.

Use of radium.

Clinical and pathological laboratory service.

Electrocardiograms.

Basal metabolism examinations.

Use of physical therapy apparatus.

Oxygen.

All drugs, biologicals, sera (including streptomycin and penicillin), and solutions, except blood or blood plasma, which are listed in the United States Pharmacopoeia (XII), the National Formulary (6th edition), and the New and Non-Official Remedies (1944).

Gauze, cotton, fabrics, solutions, plaster, and other materials used in dressings and casts.

Both the Hospital contracts should provide that the insurance company will pay for care to non-bed patients in accident cases and for hospital care on the initial visit in emergency surgical cases. Hospital contract should also provide for maternity service after a nine-months waiting period, which waiting period will be waived if 75 per cent of group enrolls. And the hospital contract shall also provide for the care of tuberculosis and nervous and mental diseases, provided that after the policyholder has received 120 days of hospital benefits, as set forth above, no further benefits shall be payable until the period of six months elapses following the last discharge from the hospital.

III.

SURGICAL CONTRACT

The contract for surgical service shall provide for surgical and obstetrical care in the home, office or hospital, and shall provide indemnities up to the maximums in the attached fee schedule. In the surgical and obstetrical contract the same arrangement as regards waiting period on maternity service shall prevail as in the case of hospital contracts.

(The amounts of reimbursement enumerated below are not intended to fix the value of physicians' services or relate to such value. Physicians are free to continue to charge their usual fees for services.)

SCHEDULE OF SURGICAL OPERATIONS AND BENEFITS

Description of Operation	Maximum Benefits for Each Operation
ABDOMEN. Cutting into abdominal cavity for diagnosis or treatment of organs therein (unless otherwise specified in the Schedule).....	\$100
ABSCESSSES	
Requiring hospital residence (furuncles excepted)	25
Not requiring hospital residence.....	5
Furuncles (boils)	5
AMPUTATION of	
Thigh	75
Leg, entire foot, arm, forearm, or entire hand.....	50
Fingers or toes, each.....	10

ANESTHESIA (by Doctor of Medicine)	
Major Surgery	10
Minor Surgery	5
APPENDECTOMY	100
BLOOD TRANSFUSIONS , direct from Donor to Recipient only, each	25
BREAST	
Amputation	100
Abscess, deep (furuncles excepted).....	25
CANCER. See under Tumors.	
CHEST	
Complete thoracoplasty, or removal of portion of lung	150
Other cutting into thoracic cavity for diagnosis or treatment (tapping excepted).....	40
Induction of artificial pneumothorax, including all refills	25
CHILDBIRTH. See Maternity.	
DISLOCATION. Reduction of	
Hip or knee joint (patella excepted).....	35
Shoulder, elbow or ankle joint.....	25
Lower jaw	15
Collar bone or wrist.....	10
For dislocations requiring an open operation the maximum amount of payment will be twice the amount shown above.	
EXCISION , Removal of	
Shoulder or hip joint.....	100
Knee joint	75
Elbow, wrist or ankle joint.....	50
Diseased portion of bone, including curettage (alveolar processes excepted).....	50
EAR, NOSE OR THROAT	
Mastoidectomy—One side	75
Both sides	100
Tonsillectomy, or tonsillectomy and adenoidectomy	30
Sinus operation by cutting (puncture of antrum excepted)	35
Puncture of antrum.....	5
Submucous resection of nasal septum.....	35
Tracheotomy	35
Bronchoscopy for removal of foreign body or biopsy	35
Any other cutting operation (tapping excepted)....	10
EYE	
Any cutting operation into the eyeball (through the cornea or sclera).....	50
Removal of eyeball	35
Removal of foreign body from cornea or sclera.....	5
Any other cutting operation on eye.....	20
FRACTURE. Treatment of	
Thigh, leg, kneecap, upper arm, vertebra or vertebrae, or pelvis (coccyx excepted).....	50
Lower jaw (alveolar process excepted), collar bone, shoulder blade or forearm.....	25
Wrist, hand, ankle or foot.....	15
Fingers or toes, one or more.....	10
Nose, rib or ribs.....	10

The amounts shown are for simple fractures.

For compound fractures the maximum amount of payment will be one and one-half times the amount shown above for the corresponding simple fracture. For fractures requiring an open

operation, the maximum amount of payment will be twice the amount shown above for the corresponding simple fracture.

GENITO-URINARY TRACT

Removal of kidney	150
Cutting into or fixation of kidney.....	100
Removal of tumors or stones in kidney, ureter or bladder	
By cutting operation	100
By crushing, cauterization or endoscopic means....	25
Stricture of urethra	
Open operation	50
Intra-urethral cutting operation	25
Removal of entire prostate by open operation (complete procedure)	150
Removal of part of prostate	
By endoscopic means.....	40
By other cutting operation.....	75
Varicocele, cutting operation on.....	25
Hydrocele, excision, or incision and treatment of sac (tapping excepted).....	25
Orchidectomy or epididymectomy.....	35
Complete removal of uterus, tubes and ovaries.....	150
Other operations on uterus and its appendages	
Cutting operation with abdominal approach.....	100
Cutting operation without abdominal approach....	50
Dilation and curettage (non-puerperal).....	25
Removal of cervical polypi and cyst—one or more	10

GOITRE

Thyroidectomy (complete procedure, including ligation of thyroid arteries, to be treated as one operation)	150
Ligation of thyroid arteries not followed by thyroidectomy	
One or more at one operation	50
Two or more stage operation.....	75
(Complete procedure to be treated as one operation)	

HERNIA. Cutting operation for radical cure

Single hernia	50
More than one hernia.....	75

JOINT. Incision into (tapping excepted)..... 25

LIGAMENTS. Cutting operation.....	25
Suturing of tendons, single.....	25
Suturing of tendons, multiple.....	40

MATERNITY

Delivery of child or children.....	50
Caesarean section, including delivery.....	100
Abdominal operation for extra-uterine pregnancy....	100
Miscarriage	25

OBSTETRICAL. See Maternity.

PARACENTESIS. Tapping of

Abdomen, chest, or bladder (other than catheterization)	10
Eardrum, hydrocele, joint or spine.....	10

RECTUM. Cutting operation or injection treatment for radical cure of hemorrhoids (complete procedure)	25
Cutting operation for prolapsed rectum or fistula in ano	25
Cutting operation for fissure	10

SKULL. Cutting into cranial cavity..... 150

SPINE OR SPINAL CORD. Operation with removal of portion of vertebra or vertebrae (except coccyx) 150	
Removal of part or all of coccyx.....	50

TONSILLECTOMY. See under Ear, Nose or Throat.

TUMORS. Cutting operation for removal of	
Malignant tumors, except those of face, lip or skin	100
Malignant tumors of face, lip, or skin.....	25
Benign tumors requiring hospital residence.....	25
Benign tumors not requiring hospital residence.....	10
Papilloma and cyst, one or more.....	5

VARICOSE VEINS. Cutting operation or injection treatment (complete procedure on all veins).....	40
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The company shall determine the amount of payment, if any, for a cutting operation performed upon a certificate holder or dependent which is not specified in this schedule but in no event will the amount payable for such operation exceed the maximum surgical benefit for which the certificate holder or dependent is insured.

IV.

MEDICAL CONTRACT

Medical benefits are to be provided for hospitalized sickness only. The contract should allow \$5 to the physician for medical service the first 3 days of hospitalization, \$3 a day to the physician for the next 27 days and \$1.50 a day thereafter to 120 days.

V.

EXCLUSIONS

The hospital, medical or surgical contracts may include the following exclusions:

Hospital admissions solely for X-ray, electrocardiograms, basal metabolism examination, or physical therapy not incidental to necessary hospital bed care required at the time of admission.

Care for any Hospital Service resulting from accidental injury arising out of, or in the course of employment or from sickness for which benefits are provided under any Workmen's Compensation or similar law.

Care provided by a governmental agency without cost to the Certificate Holder or Dependent, or care received under local, state or federal laws, such as legislation covering the care of veterans and merchant seamen in Veterans or Marine hospitals.

Services of blood donors, private nurses and their board, special braces, appliances, and ambulatory apparatus.

Treatment for a refraction, or performing a plastic operation for cosmetic or beautifying purposes unless necessary to correct traumatic conditions or congenital injuries.

All policies issued should provide that if a policyholder leaves a group through which he

enrolls that he may continue his hospital, surgical or medical protection under an individual certificate which will be issued to him by the insurance company.

Charles R. Henry, Chairman,
H. A. Higgins,
Alan G. Cazort,
Ellery C. Gay,
B. L. Moore,
P. W. Lutterloh.

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RESOLUTIONS

Whereas there is reported by the Committee on Public Health of the Arkansas Economic Council-State Chamber of Commerce to be a shortage of 750 medical doctors and a shortage of 4,000 hospital beds in Arkansas and

Whereas the Medical School of the University of Arkansas is the only Arkansas institution for the training of physicians and

Whereas this Medical School is in critical danger of losing its "A" rating granted by the American Medical Association unless the school obtains 400 additional teaching beds for the University hospital, a condition necessary to meet standards of the American Medical Association, and to fulfill a pledge made to that association, and

Whereas construction of the University hospital addition would contribute to easing crowded

conditions in other Arkansas medical institutions, therefore

It is resolved by the Board of Directors of the Arkansas Economic Council-State Chamber of Commerce that every practicable step should be taken by the State of Arkansas to insure that the University's Medical School shall retain its rank as a first class institution through construction of the needed addition to its hospital, and provision of adequate operating funds for both school and hospital.

January 29, 1947.

WOMEN'S AUXILIARY NEWS

Mrs. Walter G. Eberle was named chairman of the nominating committee for Sebastian County Medical Society Auxiliary at a business session, held in connection with the February luncheon-social meeting of the Auxiliary February 10th. She will serve with Mrs. J. S. Southard and the president, Mrs. Fred H. Krock.

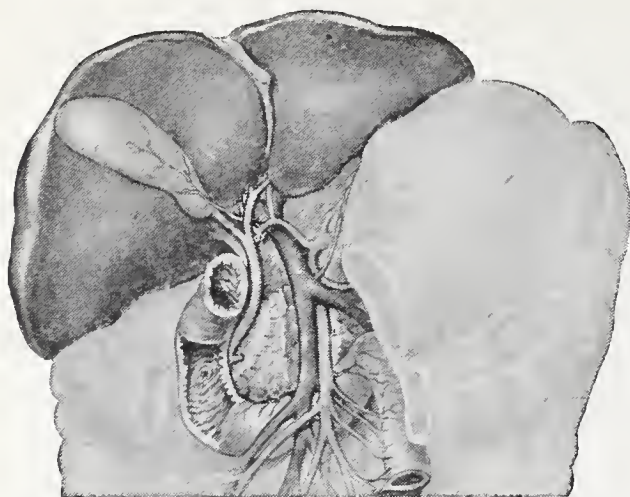
Present were Mrs. J. D. Olson and Mrs. Morris Henry, guests, and Mrs. Arthur F. Hoge, Mrs. Kenneth Thompson, Mrs. H. H. Smith, Mrs. Jim Johnson, Mrs. Hugh Johnson, Mrs. W. L. Shippey, Mrs. B. L. Ware, Mrs. W. F. Rose, Mrs. C. W. Hall, Greenwood, Mrs. Eberle, Mrs. Southard and Mrs. Krock.

The Women's Auxiliary to the Pulaski County Medical Society met January 15th at the home of Mrs. R. A. Law with Mrs. Charles Wallis, Mrs. J. R. Warden, Mrs. Grady Reagan, Mrs. Ben Means, Mrs. A. M. Washburn, and Mrs. Byron Bennett acting as co-hostesses. The Auxiliary was hostess to Mrs. Fred Hames of Pine Bluff, the president of the Auxiliary to the State Medical Auxiliary, who was presented with a lovely corsage by the hostesses. Mrs. Hames addressed

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A record of twenty-eight years service to Doctors, Clinics and Hospitals insures a kindly and understanding service to your debtors . . . Since **all money is paid to you**, you are still guardian of your accounts and all monies . . . You pay us commission only on such amounts as are paid to you . . . Won't you please write for a list of our Doctor and Clinic clients in Arkansas, and enlist our help, while the time for collections is opportune?

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the meeting on the responsibilities of membership in the Auxiliary. Mrs. R. M. Eubanks gave an interesting paper on "Modern Miracles in Medicine and Surgery."

Mrs. Mason G. Lawson presided over the business meeting. Mrs. D. W. Dykstra, membership chairman, announced that 16 new members had been secured. Mrs. Carrol Shukers, Hygeia chairman, reported that she and her committee had sold 109 subscriptions to Hygeia. Mrs. Erner Jones, chairman of Medical Dames, said that the Medical Dames had contributed filled Christmas stockings to the patients of the University Hospital and several of the orphanages of the city. Mrs. C. E. Witt reported on the City Federation meeting.

Mrs. Law's home was beautifully decorated with a profusion of spring flowers. A delicious luncheon was served to fifty guests.

The Craighead-Poinsett Medical Auxiliary met at the Jonesboro Country Club, Thursday, Feb. 6th, at 6:30 p. m. After a delightful dinner with the doctors the members of the Auxiliary held their meeting in one of the clubrooms while the Medical Society had their program in the main dining room. The Auxiliary had as its speaker for the evening Attorney Herbert H. McAdams, Jr., who spoke on "Current Medical Legislation." There were 12 members present and two visitors. After Mr. McAdams' speech a short business session was conducted by the president, Mrs. Paul Stroud. Mrs. R. H. F. Lynch of Caraway was received as a new member.

(Mrs. Paul T.) Alma Stroud, President, Craighead-Poinsett Auxiliary to the Medical Society.

Mrs. C. E. Kitchens, DeQueen, has been appointed chairman, Budget Committee, Woman's Auxiliary to the Southern Medical Association.

The Woman's Auxiliary to the Arkansas County Medical Society assisted in the first diagnostic cancer clinic held in Arkansas in September, 1946. Fifty-five patients were examined. The clinic was conducted by the Arkansas Division, American Cancer Society, in cooperation with the Arkansas County Medical Society.

The Auxiliary to the Jefferson County Medical Society met February 4th. Mrs. W. H. Bruce, membership chairman, reported 32 memberships paid for this year, an increase of 15. Mrs. J. S. Jenkins, chairman of the hospital grounds committee, reported that funds for beautification

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projects for this spring and fall have been secured through the efforts of the City Beautiful Commission. Mrs. John K. Walker, chairman, and Mrs. Allen Russell reported that all repair work, plumbing and tile work had been completed at the hospital nursery and it was voted to proceed with the redecoration. Mrs. Charles W. Anderson, general chairman of the benefit party set for February 15th, announced that all tickets have been sold with numbers of requests still coming in. Mrs. Arthur Fowler, Jr., and Mrs. C. W. Reid, co-chairmen, announced the completion of their project of soliciting sample medications from the doctors for overseas relief. It was reported that all sewing at the hospital and all mending is up to date, the work having been done by the sewing committee of the Auxiliary. Through efforts of the Auxiliary to acquaint the public with needs of Davis Hospital, the Temple Sisterhood and the United Council of Churchwomen have contributed funds for the purchase of bedspreads for the hospital and the A.A.U.W. has contributed funds for the purchase of a refrigeration unit and a drinking fountain.

Mrs. Louis K. Hundley, President,
Mrs. T. J. Cunningham, Secretary.

Haddon Hall will be the headquarters for the annual meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, New Jersey, June 9-13, 1947. Requests for reservations should be sent immediately to Dr. Robert A. Bradley, chairman, Subcommittee on Hotels, 16 Central Pier, Atlantic City, New Jersey.

The Woman's Auxiliary to the Pulaski County Medical Society met for its annual Dutch Treat Luncheon at the Woman's City Club December 18th. Fifty members and guests were present. The tables were beautifully decorated in the Christmas motif by Mrs. R. E. Rowland, Mrs. W. R. Richardson, and Mrs. J. B. Crawford, who served as hostesses for the meeting. Following the luncheon Mrs. Mason G. Lawson, Auxiliary President, conducted a short business meeting.

Mrs. Lamar McMillin introduced Mr. William Hacker, Director of the Arkansas State Symphony Orchestra, who entertained the group with a program of piano solos.

The Independence County Medical Society and Auxiliary held a joint meeting December 9th at Hi View Inn where they enjoyed a delicious dinner preceding the meeting. The Christmas

motif was used in the decorations and table appointments. Following the dinner there was an exchange of gifts. Xmas carols were sung.

BOOK REVIEW

An Integrated Practice of Medicine—A Complete General Practice of Medicine from Differential Diagnosis by Presenting Symptoms to Specific Management of the Patient: By Harold Thomas Hyman, M. D., Volumes I, II, III, and IV, and Index. 1,184 illustrations, 305 in color. 319 Differential Diagnostic Tables. Philadelphia and London: W. B. Saunders Company, 1947. Price, \$50 per set.

The uniqueness of these four volumes arrests the practitioner who "reads as he runs" in many ways. Much emphasis has been laid by teachers of medicine since the time of Hippocrates to ever treat the patient as an entity rather than to separate him into many compartments or facets. Dr. Hyman and his able cohorts have really done something about accomplishing this end in their "Integrated Practice of Medicine."

For instance, in the presentation of pulmonary tuberculosis (or any other disease, for that matter), one is not given the classical description of a far-advanced tubercular individual accompanied by many pictures (X-rays, etc.) of terminal phthisis with the entire discourse built around this far advanced lung pathology but rather he is shown the disease from its inception along with other contributing factors and roles played by the humoral system; the nervous system; the GI tract; and other bodily mechanisms. These integrated factors are so clearly portrayed that the reader feels he is marching along with this stalking invader and as he reads he is shown how to take advantage of any vulnerability the disease may present so that he may give the human host every advantage in the conflict. This work can be truly called an integration or linking together of all of the ailments contributing to that most complex of variations from the norm which man terms "disease."

In treatment, the busy doctor will find a truly radical departure from other works and he will experience the delight of seeing a treatment simplified and the therapeutic procedure briefed down to the real fundamentals. The author has boldly omitted a great many time-honored and frequently used but unscientific treatments and measures. At other times he uses description and shows why certain antiquated measures should be abandoned. His reasons for doing so are concisely stated and very convincing. Thus, this reviewer has had some of his best "playhouses" torn down after having played in them for many years.

For those who desire "armchair" post-graduate courses from which all but true facts and deductions have been deleted; for those of you who need a rapid, excellent cross-indexed reference of modern medicine; or for those of you who desire to enjoy fully a clear, readable, logical integration of medical practice as it exists in the light of today's knowledge, this work is respectfully commended.

It is my intention to continue reading the four volumes from "kiver to kiver," purely for pleasure, polish, and profit; to refer to it frequently as a silent consultant which is arranged and indexed in such a manner that instant answers can be readily acquired; and, finally, to use such knowledge for a more scientific approach in treating those who come under my care.

—Stanley M. Gates, M. D.

The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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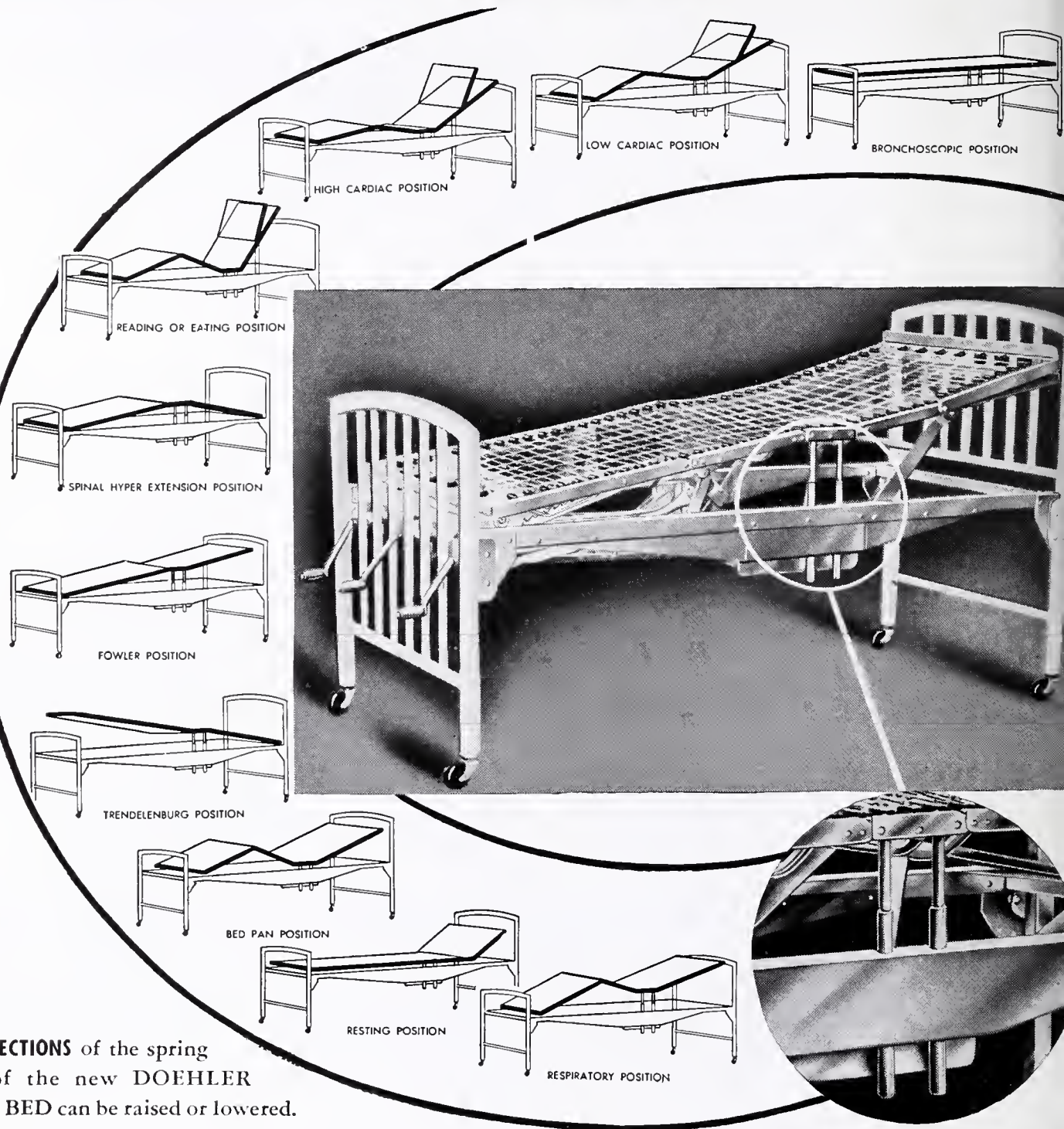
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No. 11

TUBERCULOSIS CONTROL ACTIVITIES OF THE ARKANSAS STATE BOARD OF HEALTH*

A. C. CURTIS, M. D.†
Little Rock

Dr. Edwards has given you a most excellent presentation of the general trends in tuberculosis control and some of the outstanding problems which we must face.

It is my desire to explain the services of the Division of Tuberculosis Control of the Arkansas State Board of Health which are offered you as private practitioners and in exchange for these services outline certain measures of co-operation for which we would like to count on you.

Because of the irreparable damage to the lung which ensues as a result of prolonged infection by the tubercle bacillus, early diagnosis and prompt placement under treatment remains of paramount importance. It is a regrettable fact that the majority of patients who enter our state sanatoria for treatment because of pulmonary tuberculosis, do so as far advanced cases. Such cases require several years of treatment to effect an arrest and a large percentage of them will never be cured. These same cases, had they been diagnosed in an early stage, placed under proper treatment, could, in the majority of instances, have been arrested in a few months. It is in this respect that by directing the early case of pulmonary tuberculosis to the attention of you family physicians that the Division of Tuberculosis Control can be of paramount value.

If you stop a moment to consider the early tuberculous lesion in the periphery of the lung parenchyma, relatively avascular, and walled off from the larger bronchi, you can readily realize why these patients have no acute symptoms which

would bring them immediately to a doctor's attention. How fortunate it would be if every case of pulmonary tuberculosis was ushered in by a sublethal hemorrhage which would scare the patient into immediately seeing his physician.

Instead we are faced by a silent, undramatic, deadly invasion which becomes manifest only in its advanced stages after a firm foothold has been established and much lung tissue destroyed.

These minimal cases of tuberculosis may have a vague idea that there is something wrong with them, but in the vast majority of instances the symptoms are not alarming enough to the patient to cause him to see his doctor.

Since the patient does not come to the doctor in time, let's take the doctor to the patient. This can be done through the medium of screening surveys of the general population and, in particular, all contacts to known cases of tuberculosis.

It is quite well recognized that the best method of finding these early cases is by means of a chest X-ray, but it is not economically feasible to X-ray every person's chest on a standard 14 x 17 inch film. The advent of the miniature photofluorographic film process does make this possible.

Since it would not be ethical for you as private practitioner to go to an apparently healthy man and ask him to let you X-ray his chest, some operation for accomplishing this in effect must be devised in order that you may diagnose the case early and get it under proper treatment.

Here is the manner in which the Division of Tuberculosis Control can be of service to you and the people dependent upon you for the protection of their health.

Under a joint sponsorship of the Local County Medical Society, the Local County Health Department, the Local and State Tuberculosis Associations, and the Division of Tuberculosis Control, a program would be instituted for X-raying the entire adult population of the respective area. This might be done either as one sustained project or by repeated shorter clinics at bi-monthly

† Director, Division of Tuberculosis Control, Arkansas State Board of Health.

* Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

intervals. Most of you are perhaps already familiar with these case finding clinics as they have been conducted during the past three years, but to remove any possible misunderstanding, let me outline our policies.

1. All screening X-ray service will be done by use of miniature X-rays.

2. Each person X-rayed **must** indicate his family physician, or the physician to whom he wishes the report sent.

3. The family physician will not be notified when the miniature X-ray findings are essentially negative but the patient will be so notified by letter from the Local County Health Department.

4. When suspicious findings are present on the miniature film, the tentative diagnosis and recommendations made on this basis will be reported to the family physician in writing before the patient is contacted by the Health Department.

5. Findings of these miniature films shall be only tentative and shall be construed to mean only that further examination of the patient by his family physician is indicated.

6. This further examination shall in every instance include a chest X-ray of standard dimensions made by the family physician or by a roentgenologist to whom the patient is referred by his family physician.

7. No pathological diagnosis will be given to the patient by a representative of the Health Department, it being understood that the final diagnosis is to be determined by the family physician and imparted to the patient by him. This final diagnosis should also be reported to the Local Health Department.

8. The miniature films will be filed in the central office of the State Health Department and will be available for inspection by any patient's family physician upon written request by the patient or physician.

As you see, particular emphasis has been laid on the fact that the findings based on the miniature films are only tentative and must have subsequent rechecks by means of standard size chest films for confirmation. The practice of using the miniature film as a means of final diagnosis is discouraged at every opportunity. Your cooperation and attention in obtaining these recheck standard size chest films as a primary means of arriving at your final diagnosis is most urgently requested. A large number of minimal and even

moderately advanced lesions will be undetectable by the employment of even the best of physical examination procedures, hence, although the history and physical examination is essentially negative, it is most earnestly requested that the recheck film be made in response to the indication as shown in the miniature film before the patient is assured there is nothing wrong with him or before you arrive at a final diagnosis.

It is believed that such follow-up of apparently well individuals who show suspicious findings on the miniature films will be quite enlightening as you will be surprised by the number of active lesions which will be discovered by such means in this group.

Early diagnosis will always be of first importance for even if a specific curative drug for tuberculosis is discovered it will avail the patient little if his tuberculosis is cured but his lung is left in a fibrosed, bronchiectatic condition which will always be a constant harbor for secondary organisms which may well affect his good health as seriously as the original tubercle bacilli.

Suspicious cases discovered by this screening method are contacted by the personnel of the Local County Health Department and instructed to see their family physicians who will already have received a written report of the miniature film findings. The patient will be told by the County Health Department only that there is something suspicious or something definitely wrong in his chest. It then becomes the duty of that Health Department to persist in the follow-up on that case until the patient has been examined by his physician and a final diagnosis accomplished. This final diagnosis, whether it be negative or positive for tuberculosis, should be cleared on that individual case. Thus, in the final analysis the diagnosis and recommendations for treatment are made solely by the family physician and imparted by him to the patient.

At the present time the Division of Tuberculosis Control has two portable X-ray machines using 35mm films but we have on order three of the most modern mobile X-ray units obtainable which should be in operation by the middle of summer. These units consist of 200 milli-ampere, 110 kilovolt X-ray machines used in conjunction with a photofluorographic unit employing 70mm films. This X-ray equipment will be housed in large van-type trucks which will provide adequate dressing room space for the patients and space for the technician and a clerk. These units will also carry a gasoline engine and dynamo for

generation of the needed electricity and may be operated entirely independent of any local current supply. This new equipment will provide us with highly flexible units which will make us entirely independent of any local housing or power facilities and will enable us to X-ray individuals in the most remote rural areas.

Regular clinics will be established in each county desiring this service and you are urged to avail yourself of this opportunity in raising the standard of service which you render your patients.

It avails us nothing, however, to discover a case of tuberculosis unless that case is placed under proper treatment, and the disease arrested. It is realized that because of the chronicity of the disease, the fact that the case is best treated in the sanatorium and the inability of most tuberculars to pay for prolonged treatment, all combine to make the disease one of very little interest to the private practitioner after the diagnosis has been established. The placing and maintenance of these individuals in a sanatorium is not rightfully your entire responsibility. It is felt, however, that this does become a major responsibility of the Public Health Department. Obviously, however, unless the Health Department is notified of the existence of these cases we are unable to exercise this responsibility.

This brings us to the matter of case reporting. You all know that it is a law that all cases of tuberculosis are reportable at weekly intervals to the State Board of Health through its Local Health Departments. It is most necessary that you perform your duty in this instance.

A Central Tuberculosis Case Register has been established in the Division of Tuberculosis Control for recording all reported cases. Of course, a certain amount of very valuable statistical information will be derived from the register but such statistics are not its primary aim. Direction of tuberculosis control activities is its function. This central register has been in operation only since January 1, 1946, but it shows the following, rather disquieting facts. There are 5,165 cases of tuberculosis in this state on which the health department has received a definite report of pulmonary tuberculosis, the majority having active disease. There are an additional 1,598 individuals who, because of incomplete reports from physicians or unconfirmed findings on miniature films, are suspected of having tuberculosis. These latter individuals must be thoroughly investigated, as no case is accepted as officially reported unless we are notified by the physician

directly, or a hospital, or by death certificate.

New cases of pulmonary tuberculosis reported for January and February total 174, but please note the source of these reports. Ninety-seven were reported for the first time by admission to the state sanatoria, 43 were reported for the first time by death certificate and only 34 were reported directly by private practitioners. Let us analyze the significance of these figures and the source of these reports. The 43 cases first reported by death certificate ran the entire course of the disease from inception to death without the Health Department having any knowledge of such cases. It is unknown whether these cases were under competent and continuous medical supervision but it may well be supposed that a large number of them were free to infect innocent individuals, and it is only now that a search for and examination of their close contacts can be started. It is quite probable that the disease when discovered in these contacts will have been existent for several years and our collective efforts to cure these individuals will be set back by just that long a time.

We do know that in the two months of January, and February, 97 cases of tuberculosis were diagnosed but not reported and that they did enter the sanatoria. We do not know how many other cases were diagnosed and not reported, and did not enter a sanatorium, as out of a total of 174 reported cases, only 34 cases were reported by private physicians. You may have diagnosed many more cases and recommended the proper treatment to the patient. The patient, however, is not bound to follow your advice and all too frequently is prone to avoid the doctor and remain in the community, a menace to himself and all his associates. You, of course, have some moral responsibility in persuading this uncooperative or ignorant patient to avail himself of modern treatment but you certainly do not have the time and very little inclination to go out of your office and keep after this patient until he does take treatment.

The follow-up on these patients is, however, a strict duty of the Health Department because of the infectious and contagious nature of the disease. Unless the Health Department is notified of the existence of such cases we are unable to exercise this very valuable function.

It is hoped that the above examples will impress you with the importance and necessity of reporting new cases of tuberculosis and all cases of tuberculosis coming under your care for the

first time, so that the protective mechanism of your Public Health Department may be put into operation. In order to facilitate this reporting a very short form is available for your use from the Local Health Department or from the Division of Tuberculosis Control of the State Health Department for those counties in which we have no local representation. This form asks only for the name and address of the patient, the stage of the disease, your impression as to its activity, the sputum status and what disposition you wish to make of the case. It takes less than one minute to fill out the entire card. Franked, self-addressed envelopes are provided with each card for its return to the proper health department.

Again I beg all of you to cooperate with us in the reporting of all known cases of pulmonary tuberculosis.

The Central Register is also used as a coordinating agency between the sanatoria and the Local Health personnel. For example, we are notified by the sanatoria when a patient goes on an extended leave of absence, usually three months. The local Health Department is then notified by the register that this patient is back in his home community for a stated length of time during which any necessary home services are rendered by that local personnel. If the patient does not return to the sanatorium at the expiration of the leave of absence the register is notified and in turn the local Public Health personnel is advised that all measures should be taken to persuade the patient to return to the sanatorium.

Similarly the migration of patients from one county to another or from one state to another is traced by the flow of information from the county or state of former residence through the register to the county or state of new residence.

For the first time we will, by means of the central tuberculosis case register, have a means for determining the actual tuberculosis problem as it exists in this state and an indicator for the best directions of attack.

The Central Case Register will serve a further purpose by enabling us to see that patients remain under competent medical supervision. While it is thought that tuberculosis can be treated best in a sanatorium, we do recognize your right to treat a patient at home if you so desire. We are interested, though, in seeing that that patient remains under your supervision and doesn't become lost in the shuffle. With

this end in mind, we will make inquiry of you at six month intervals as to each patient purportedly under your supervision. If he has "strayed from the fold," we will make every effort to get him back under medical supervision.

Finally as cases are reported as apparently arrested, or arrested, they will be referred to the State Department of Vocational Rehabilitation, for re-education and the placement in a mode of employment compatible with their exercise and work tolerance.

As a patient's condition improves, the question invariably arises as to whether it is safe to allow him to again associate with the public. To determine this a system for sputum culture has been developed by the cooperative efforts of the State Hygienic Laboratory and the Division of Tuberculosis Control. This service is now offered you for your use and guidance.

Sterile specimen bottles enclosed in mailing containers may be procured from your Local Health Department or will be mailed you upon request to the Division of Tuberculosis Control of the State Board of Health. These packages also contain explicit instructions as to the correct method of collection of the specimens. Please bear in mind that reports may be as long as two months in reaching you as no culture will be discarded as negative until it has been incubated at least six weeks.

A rather arbitrary definition for a negative sputum has been established but it is felt that compliance with it will afford as large a measure of safety as is reasonably possible. That is, to the effect that a sputum shall not be considered to be negative until three specimens, collected at not less than twenty-four hour intervals, have proven to be negative for tubercle bacilli by culture. You may feel reasonably sure that any case meeting the above requirements will not at that time be in an infectious state. Unfortunately there is no guarantee of this safe condition prevailing indefinitely, so again through the case register, we will check up on the sputum status of these supposedly arrested cases at periodic intervals.

There now remains to be considered the most unpleasant part of the entire picture, that of the recalcitrant, irresponsible patient with a positive sputum.

The idea of forcing an American citizen to submit to anything against his will is foreign to all our concepts of democracy. But just as com-

mon laws are necessary to control crime, it becomes apparent that some legal method must be employed to control those willfully ignorant or antisocial patients, who by their actions, endanger the safety of their fellowmen.

An effort is being made to effect this by means of a comprehensive revision of the Rules and Regulations of the State Board of Health, whereby an individual with a positive sputum who willfully persists in endangering the innocent public, may be by due course of law committed to a sanatorium until such time as he becomes sputum negative or demonstrates a desire and willingness to conform to Public Health principles and the laws of society. No doubt, we shall have a test case in court within the next few months and your cooperation in educating the public as to the danger of such open cases would be of extreme value.

In closing, may it be pointed out to you that while automobiles were killing 273 people in the state of Arkansas in 1945, a purely preventable disease in the form of tuberculosis was killing 747. As long as such a reflection is cast upon the medical profession, we may well realize that there is more than enough work for all and it behooves us to "get high behind" and do something about it.

ATTENTION!

Reserve Officers, Army and Navy

There are at this time, and will continue to be, quite a number of appointees to Civil Service positions who will require physical examinations. These examinations are to be performed by designated Federal medical officers. However, since that list is relatively small, reserve officers of the Army and Navy may be considered Federal medical officers, and may conduct such physical examinations on a fee basis—if not in government service or on active duty. Fees charged for these examinations are borne by the applicants, and not by the Civil Service Commission. Although the Commission does not stipulate the rate of fee, it is usually considered to be from \$3 to \$5.

Those reserve officers of the Army and Navy, who are interested, are urged to submit their names to the following address:

The Director, Ninth U. S. Civil Service Region, New Federal Building, St. Louis, Missouri, Attention Regional Medical Officer.

A CONSIDERATION OF THE SURGICAL COMPLICATIONS OF AMEBIASIS OF THE COLON AND RECTUM*

DOWLING B. STOUGH, JR., M. D.
Hot Springs National Park, Arkansas

Introduction

It will not be my purpose during the time assigned to me to stress in any way the surgical treatment of the various complications of Amebiasis of the colon and rectum. Nor shall I consider the medical treatment. Rather it will be my desire to bring out in a broad way our responsibilities in the diagnosis of this condition and to discuss them more or less in detail.

In 1875 Losch discovered the ameba in the feces of a Russian suffering from a severe attack of dysentery in the city of which at that time was known as St. Petersburg, Russia.

The importance of this disorder to Americans, however, was not fully appreciated until the time of the Chicago World's Fair in 1933 when there were 1,215 cases reported. Previous to that time it was thought to be confined to certain limited areas of the country. But this epidemic revealed that a new and virulent strain has a tendency to produce bizarre and puzzling complications. It is now known that practically every locality in this country may reveal Amebiasis and it is commonly agreed that there are more than ten million people in the United States who are harboring

Amoeba Histolytica.

Returning Service Men may be responsible for an increase of this disease.

In 1944, 102 cases were found in the City Clinic and Levi Hospital of Hot Springs, Arkansas. Over a six-year period in the University Hospital, Little Rock, Arkansas, there were 24,875 patients admitted of which number 68 were affected with Amebiasis—55 of which were intestinal.

Characteristics

It might be well to discuss some of the characteristics and peculiarities of the ameba. To begin with there are at least four genera and six species of ameba which occur in man as well as other species of doubtful authenticity, but

* Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

only one—**Endamoeba Histolytica**—is pathogenic. The protozoites of **Endamoeba Histolytica** vary in size from 15 to 60 microns in diameter, averaging between 18 and 25, with from one to four nuclei in each cyst.

Endamoeba Histolytica may occur in the stools of individuals with no demonstrable signs of the disease, and are therefore of little diagnostic value. Man is the principle host of the parasite and becomes infected through the ingestion of cysts in uncooked foods which have been contaminated or by drinking contaminated water which has not been boiled. When the cyst reaches the colon it finds suitable environment for development into the active protozoan form. The active ameba then invades the wall of the colon and sets up ulceration where it continues to reproduce indefinitely.

Pathology

It has been said, and more or less proven that there is no part of the body which is not susceptible to the ravages of the ameba for which reason it is necessary to keep this disease in mind constantly. This organism has been reported to have been found in practically every structure, including the skin, bones and joints although it may be difficult to identify. Liver involvement probably occurs in 50% of the cases of Amebiasis of the colon; the lungs are often involved by direct extension from liver abscesses.

The following intestinal lesions are of significance either from a direct surgical standpoint or from a differential diagnostic standpoint for safeguarding against surgery:

1. Appendicitis (rarely surgical, if ever)
2. Cecal Amebiasis (do not mistake for surgical appendicitis)
3. Perforation with resulting peritonitis
4. Massive hemorrhage
5. Ameboma (amebic granuloma)
6. Cicatricial stenosis (rare)
7. Pseudopolyposis
8. Ischio-rectal abscess
9. Ano-rectal fistula

Very often **appendicitis** is complicated by the presence of ameba in this area. Amebic infection of the appendix is usually a direct extension from the cecum. Post mortem examinations of patients who died of Amebiasis as shown by various investigators reveal that as high as 41% showed involvement of the appendix. These higher figures are found in those who did not have a course of emetine before death. Often it is difficult to decide at once the choice of procedure when the diagnosis remains in doubt, that is, whether one is dealing with an acute appendix or a cecal Amebiasis. Delay in acute appendicitis is always

dangerous but a careful consideration of the hazards of operation in intestinal Amebiasis proves that it is not without great risk. If a localized mass is found in the right iliac fossa and where ameba has been discovered whether it is acute appendicitis or ameboma, immediate surgical interference is not always advisable but the condition should first be treated with emetine.

Cecal Amebiasis is so closely associated with appendicitis that it is very difficult to differentiate between the two. From a large series of cases observed by Clark, Connell and Faust it is plainly shown that the favorite points of occurrence of Amebiasis in the colon are the cecum, appendix and ascending colon. Often, as stated above, the appendix is involved by direct extension from the cecum. The ameba sets up irritation and ulceration in the cecum which may produce manifestations and symptoms of appendicitis.

Perforation with resulting peritonitis occurs after very severe attacks of intestinal Amebiasis. This condition may be due to the rupture of either an old ulcer or abscess and the symptoms may not be greatly different from those of any other form of intestinal perforation. Fortunately this condition does not occur often but it is well to be kept in mind. Perforation has been found in post mortem examination in from 6 to 19% of cases, varying greatly with different investigators. The most common sites of perforation are the cecum, sigmoid and appendix. Lesions may be single or multiple. This condition usually occurs with fulminating attacks.

Massive hemorrhage may occur but very rarely and is usually fatal due to the condition being unrecognized previous to the hemorrhage.

Ameboma (amebic granuloma) may occur in any portion of the colon. Investigators are not thoroughly agreed as to the most frequent site and due to the fact that the radiologist is unable to demonstrate typical shadows from this tumor, it may be confused with any of the other types of intestinal tumors until diagnosis is accomplished.

Cicatricial stenosis seldom occurs but when it does it is usually described at the post mortem examination as following numerous ulcerative lesions which have attempted healing by deposit of fibrous tissue.

Pseudopolyposis seldom occurs with Amebiasis. **Ischio-rectal abscess** is often complicated by Amebiasis although the frequency of this condition has not been definitely established.

The frequency of Amebiasis complicating **Ano-**

rectal Fistula may still be determined by future investigations. It would not be difficult, however, for one to imagine that at the original site of entry (usually in one of the ano-rectal crypts) the ameba may accompany the original infection. This would necessarily apply to ano-rectal fistula which as we all are aware is the tract of an original abscess which has ruptured externally.

Symptomatology

The usual symptoms run from mild intestinal symptoms to severe diarrhea, acute or chronic dysentery and abdominal pain. One of the most frequent symptoms of intestinal Amebiasis is deep abdominal pain and tenderness on deep palpation and pressure over the cecum and sigmoid. Vomiting may occur. It is not always necessary to obtain a history of diarrhea. Ulceration in the rectum may be felt, sometimes excavated with hard margins suggesting malignancy. Rectal prolapse may occur from straining. One explanation for the fact that those suffering from Amebiasis do not all have a diarrhea may be that the host has a high resistance to the organism. This explanation is given credence by a review of some hundreds of case reports in which diarrhea is conspicuous by its absence.

Typical symptoms of lesions in the colon are as follows:

If the lesion is in the cecal area it is most often confused with appendicitis revealing the typical symptoms of this condition such as tenderness, pain, nausea, etc.

If the lesion is in the transverse colon one will usually find a fibrosis and constriction or "ameboma" both of which necessarily produce obstructive symptoms.

If the lesion is in the descending colon, sigmoid or rectum the ulceration or irritation usually causes a diarrhea with blood and mucus along with tenesmus.

Diagnosis

The diagnosis of intestinal Amebiasis is based upon a thorough and repeated search of the stools for the offending organism along with X-ray and Proctosigmoidoscopy. These latter examinations may succeed when stool examinations fail. Proctosigmoidoscopy should be thoroughly and routinely carried out in all surgical clinics until its relative value is proven or established.

Among other helpful procedures is the examination of the blood which will usually show a leucocytosis of from 10,000 to 30,000. Polys

seldom make up more than 75% of the total; if more than 80% the condition probably is not Amebiasis or else it is associated with secondary infection.

Amebiasis and cancer of the rectum or colon may occur simultaneously. Gunn and Goucher and others have reported numerous cases of pseudo-cancer complicating amebic dysentery, amebic granuloma or "ameboma."

The direct vision of the sigmoid, rectum and anus has been recommended but in my opinion has not been emphasized enough.

Jackman and Cooper have brought out the importance of proctoscopy in the diagnosis of Amebiasis by determining:

1. What percentage of patients with positive ameba stools are found to have ulceration of the lower part of the bowel?

2. How many had typical ulcers where stools were negative and were diagnosed by smears from scrapings of the ulcers?

3. How frequently do anal conditions such as anal abscess and fistula occur with amebic dysentery?

4. What other lower intestinal findings occur in amebic dysentery?

The answer to Number 1 varies greatly, but out of 115 cases at the Mayo Clinic 24 cases showed ulceration of the lower part of the bowel.

Number 2. Out of the same series of 115 cases two cases were found to be positive from scrapings, which otherwise would have been overlooked.

Out of 258 cases reported by Manson Bahr 77 cases were diagnosed from proctoscopic scrapings which otherwise may have been overlooked.

Number 3. It is estimated by the Mayo clinic that ano-rectal abscess and fistula occur less often with Amebiasis than with ulcerative colitis. This is not the unanimous belief. (During recent months I have found that the use of proctoscopic examination as well as stool examination proved beneficial as often one will reveal something not shown by the other examination).

Number 4. Out of the 115 Mayo Clinic cases one had amebic granuloma or "Ameboma" in the lower part of the sigmoid. This condition necessarily must be differentiated from malignancy or other tumefactive lesions. The differential diagnosis is made by finding the parasite in the stool, or from histologic study of

specimens—biopsy or scrapings from ulcers or tumors—removed by proctoscope. The technique of the proctoscopic examination is very simple. Simple cleansing of the bowel by tap-water enema is usually sufficient preparation. Lesions in this area may vary from the small punctate lesion to the classical ulcer. The usual location of the lesion is on the surface of one of the rectal valves or on the anterior wall of the rectum. Some forms of Intestinal Amebiasis may only be diagnosed by discovery of ameba in the stool or by the diagnostic use of emetine.

We have considered somewhat the complications and importance of conditions which may arise from ameba and upon reviewing these and appreciating the high incidence and wide distribution of the infestation, it becomes obvious that the diagnosis is of paramount importance.

The history of diarrhea or dysentery is not entirely essential, remembering that it occurs mostly when the sigmoid and rectum are involved. It is true that if one searches carefully into the history of the symptoms he will often find that at sometime the patient has had an attack of diarrhea for a short time, which could have occurred even years before.

Stool examination should be taken after giving a saline laxative, and the examination repeated from time to time.

Preparation of the patient for the proctosigmoidoscopic examination by a simple tap-water enema and special attention given to the appearance of the ulcer and taking the specimen properly will aid greatly in finding the organism and in making the diagnosis. Location of the ulcer at one of the most likely points is to be remembered. Radiograph with contrast enema is also helpful.

Craig's complement-fixation test is diagnostic within itself but this test is rarely used because of the difficulty in securing the proper antigen.

The blood picture is helpful as shown above.

Briefly mentioning the treatment of both complicated and uncomplicated Amebiasis of the colon, it is my opinion that where one is unable to clarify the diagnosis entirely, and where Amebiasis is suspected emetine should be given one grain a day for six to ten days in conjunction with diodoquin, anayodin, carbasone or one of the other amebicides.

It is true that the surgeon has to make a decision as to the procedure and this is sometimes very difficult. Doctor Rosser of Dallas,

Texas, states in discussing this condition: "In some localities many appendicities may rupture and pelvic abscesses go undrained because of the discovery of a poor, solitary *Endamoeba* in the 15th stool examination. On the other hand surgery in the presence of Intestinal Amebiasis is a hazardous undertaking. Some localities are much more on the alert for this infection than others."

It has been my custom for some time, if time permits, to have a stool examination made as routine before doing surgery in the ano-rectal area and it is surprising how many positive stools are found.

In closing I would like to call attention again to the fact that it might be worthwhile for the Proctologist and Intestinal Surgeon, no matter what section of the country he may be in, to stress examination of the stools for the *Endamoeba Histolytica* and particularly to insist upon the use of the proctosigmoidoscope in the differential diagnosis of Amebiasis.

The program of the Third American Congress on Obstetrics and Gynecology to be held September 8-12, 1947, in St. Louis will feature general sessions for all groups making up the Congress as well as smaller individual group meetings and round-table discussions. The morning sessions will be panel-type presentations of the following subjects: Tuesday, Sept. 9: Anesthesia and Analgesia; Wednesday, Sept. 10, Cancer; and Thursday, Sept. 11, Caesarean Section.

The afternoon meetings of the medical section of the Congress will consider on Tuesday: Psychosomatic Aspects of Pregnancy; on Wednesday, Pregnancy Complicating Cardiac Disease, Diabetes and Tuberculosis; and on Thursday, Recent Advances in Endocrinology.

Round-table discussions from 4 o'clock to 5 daily will consider such topics as etiology of abortion, asphyxia, fibroids, prolonged labor, infertility, early ambulation, adolescence, treatment of abortion, genital relaxation, ovulation, the menopause, the cystic ovary, uterine bleeding, nutrition in pregnancy, geriatric gynecology, endometriosis and erythroblastosis.

The popular forceps and breech demonstrations that attracted so much attention at the Second Congress in 1942, will be increased in number so that 18 demonstrations per day will be held, six each at 9, 1 and 5 o'clock daily.

MODERN CONCEPTS OF CARDIO-VASCULAR DISEASE

C. T. CHAMBERLAIN, M. D., Chairman
Ft. Smith

Committee on the Heart,
Arkansas Medical Society.

"Diffuse Vascular Disease"
Part I

There has been a trend in recent years to employ the term peripheral vascular disease or diffuse vascular disease as a catch-all designation for a variety of diseases which are of unknown or uncertain etiology and which exhibit changes in the blood vessels as part of the pathologic process. Some hospitals have established clinics on peripheral vascular disease for the study and treatment of thrombo-angiitis obliterans and circulatory disturbances of the extremities caused by arteriosclerotic occlusion of peripheral arteries. Yet, in the same institutions, internists often use the expression, "peripheral vascular disease," or the term diffuse vascular disease in an entirely different sense; that is, they are used to include suspected cases of periarteritis nodosa, disseminated lupus erythematosus, diffuse scleroderma, and other obscure diseases in which the clinical manifestations suggest the existence of disseminated vascular lesions in the kidneys, retina, muscles, heart or other viscera. Clinicians have found it convenient to use the term "diffuse vascular disease" when a more specific diagnosis cannot be made on clinical grounds and when the exact nature of the pathologic process has not yet been revealed by biopsy of muscle, skin or one of the viscera.

Such a generic term is not objectionable if it is intended to indicate only that a more exact diagnosis is impossible. Unfortunately, its use has led to some confused thinking. The occurrence of vascular lesions in the several diseases mentioned has been hailed as their "common denominator" (Fox). The observation that fibrinoid degeneration of connective tissue represents the primary pathologic change in the walls of the diseased blood vessels has been interpreted as additional support for this viewpoint. The occurrence of fibrinoid degeneration and of vascular lesions in rheumatic fever and rheumatoid

arthritis also has been used as an argument to relate these diseases to one another. Finally, the observation of fibrinoid degeneration of connective tissue and vascular changes in the Arthus phenomenon and in serum sickness, which can be reproduced experimentally by the intravenous injection of bacterial and other foreign proteins, has convinced some observers that all diseases in which fibrinoid degeneration and consequent vascular changes occur must, ipso facto, be founded in allergy or hyperergy. This conclusion, and the foregoing premises on which it is based, deserve critical examination.

Fibrinoid Degeneration of Connective Tissues

The term "fibrinoid degeneration," was introduced by Naumann in 1880. In its descriptive sense (and in the present state of our knowledge this is the only permissible way of using the term) fibrinoid degeneration indicates an alteration of the connective tissues evidenced by swelling and eosinophilia and refractility of its fibers, sometimes accompanied by similar changes in the ground substance. The cellular elements of the connective tissues may participate by proliferation or degeneration, or by a combination of both processes. The occurrence and type of fibroblastic reaction in the areas in which the collagen is altered vary in the several diseases under consideration. Thus, in rheumatic fever, the cellular reaction appears more characteristic than the changes in the non-cellular elements. The alterations in the connective tissue vary not only in their qualitative pattern but also in their distribution. In some affections, such as disseminated lupus erythematosus and diffuse scleroderma, they may be found in many tissues and organs of the body; in others, for example, thrombo-angiitis obliterans, periarteritis nodosa and rheumatic fever, they may be limited almost exclusively to the walls of blood vessels.

The term "diffuse collagen disease" was used by Klemperer, Pollack and Baehr to indicate that disseminated lupus erythematosus and diffuse scleroderma were not merely disease of the connective tissue but rather that they were affections of unknown nature in which the damage is often manifest within the connective tissues. This does not identify the several diseases, nor does it assume a common or similar pathogenesis.

The occurrence, in experimental and natural hypersensitivity, of connective tissue changes

similar to those seen in rheumatic fever, periarteritis nodosa and disseminated lupus erythematosus has led some authors (Ric and Gregory, and Teilum) to relate all of these diseases to allergy. Although this conclusion may be reasonable and possibly even correct in part or in whole, it is not necessarily true.

Allergy and Serum Sickness

Gerlach was the first to observe fibrinoid degeneration of collagen in the Arthus phenomenon. Subsequently, Klinge, Roessle, Jaeger and Rich pointed out its occurrence in generalized states of allergy and anaphylaxis of both human beings and experimental animals. Rich and Gregory recently repeated and confirmed the experimental observations of earlier investigators. By intravenous injections of bacterial and heterologous serum proteins, they induced fibrinoid degeneration of connective tissue, vascular lesions and endocarditis. Pathologic lesions have been reproduced which resemble those of periarteritis nodosa and of rheumatic fever.

There is no doubt that fibrinoid degeneration is an essential feature of hyperergic inflammation. This alone does not warrant the assumption that every disease in which foci of damaged collagen and lesions of the vascular system occur are of allergic or hyperrergic character. Yet, on this basis, there has been an increasing tendency in recent years to group rheumatic fever, rheumatoid arthritis, periarteritis nodosa, thrombo-angiitis obliterans, disseminated lupus erythematosus, diffuse scleroderma and dermatomyositis in a common "Rheumatic" category (Teilum).

It is still necessary to hesitate considerably before accepting this hypothesis. Fibrinoid degeneration of collagen is seen in a variety of conditions which are not even remotely related to allergy. Typical fibrinoid degeneration is found in the walls of arteries in malignant hypertension. It can be reproduced in the arteries of laboratory animals by the Goldblatt procedure, that is, by the artificial reduction in the blood supply of the kidneys. In such experiments there can be no question of allergy.

Fibrinoid degeneration may occur in the base of a peptic ulcer and also in abdominal connective tissue which has been injured by pancreatic ferments released by acute pancreatitis. It may be seen in the reacting connective tissue adjacent to a foreign body. It can be reproduced experimentally by the local injection into

connective tissue of organisms of low virulence and even of chemical agents.

Connective tissue is the supporting and cementing framework of all the organs and tissues of the body. It consists essentially of fibroblasts, collagen laid down in fibrils, and of a ground substance. There is only a limited number of ways in which it can react to injury. It can undergo complete necrosis or, if the injury is less intense, it may undergo degeneration; it may react with cellular proliferation and infiltration; or it may undergo sclerosis. Usually several of these changes occur together, although in varying degrees of intensity. Fibrinoid degeneration may result from any injury to the connective tissue and may occur with or without fibrosis or cellular reaction. It is not specific for any one type of injury.

Periarteritis Nodosa

There is good reason to believe that bacterial or other hypersensitivity is responsible for periarteritis nodosa in many cases. The disease is frequently preceded by attacks of urticaria, asthma or other clinical manifestations of allergy. Marked eosinophilia is usually present at an early stage of the disease, although it may be absent in the later, healing phases of the process and, therefore, may be missed. The characteristic cellular infiltration in the adventitial and medial coats of small arteries is usually, although not invariably, rich in eosinophilic leukocytes. Similar pathologic lesions are found in animals which have been immunized by repeated intravenous injections of bacteria or heterologous proteins, and typical vascular lesions can be reproduced in experimental animals by injections of a sensitizing antigen. Although fibrinoid degeneration of collagen is found in the walls of affected arteries in periarteritis nodosa, it is rarely observed in this disease in connective tissues elsewhere in the body.

Thrombo-angiitis Obliterans

The primary pathologic process in thrombo-angiitis obliterans is a granulomatous inflammatory process in the walls of large arteries of the extremities, followed by occlusion of the lumen. In the more chronic stage of the process, giant cells may be encountered in the midst of the inflammatory tissue. Eosinophils are not conspicuous. The affected tissue of the walls of the diseased vessels may show fibrinoid degeneration.

There is no longer any doubt that Buerger's

disease (thrombo-angiitis obliterans) is related to tobacco smoking. Harkavy has demonstrated the presence of reagins to some protein of the tobacco leaf in many sufferers from this disease. Nevertheless, skepticism still exists concerning the role which allergy may play in this disease, because of the direct pharmacologic effect of nicotine and perhaps other ingredients of tobacco smoke on the peripheral circulation. In many people, smoking is promptly followed by pronounced vasospasm and temporary reduction in blood flow through the extremities. Urticaria, asthma, eosinophilia and other clinical phenomena of allergy are not part of Buerger's disease. Thrombo-angiitis obliterans is almost exclusively a disease of males. Conspicuous sex predisposition is not characteristic of any clinically recognizable forms of allergy. The manner in which tobacco smoking induces this disease of the peripheral vessels is, therefore, still obscure.

Rheumatic Fever

The characteristic Aschoff bodies of rheumatic fever are found chiefly in the perivascular connective tissue space of the myocardium, in the connective tissue layer beneath endocardial and serous surfaces, and much less commonly in the walls of arteries. The primary change in the affected locations is necrosis or fibrinoid degeneration of small areas of collagen accompanied simultaneously by a striking and characteristic cellular response. Fibroblastic proliferation is progressive; multinucleated cells (Aschoff cells) appear, and, almost from the beginning, the inflammatory process is associated with the production of new fibrous tissue, especially in the cardiac valves.

In the absence of any other known etiologic agent, rheumatic fever has been suspected of being an allergic response to hemolytic streptococcal infection of the throat, which so often precedes or initiates a recurrence of rheumatic activity in susceptible persons. A complete chain of evidence in support of this hypothesis is still lacking. There is no doubt that exacerbations of the disease, when it already exists in a dormant form, may follow streptococcal infections. On the other hand, exacerbations may occur without a preceding streptococcal sore throat, and even in the absence of hemolytic streptococci in the nasopharyngeal flora. A rise in the streptolysin titer of blood serum is so frequent in rheumatic fever as to be almost diagnostic. Unfortunately, similar rises in antibody titer to

non-specific bacteria occur in other febrile diseases, for example, the Weil Felix reaction in typhus fever. Rich and Gregory have reported the experimental production of endocarditis and lesions resembling Ashcoff bodies by the intravenous injection of heterologous serum proteins. In addition to arthritis and endocarditis, they have produced multiple histologic foci showing fibrinoid degeneration of collagen with marked fibroblastic proliferation. Although these observations are suggestive, it is impossible to be sure that the lesions and the signs of illness observed in the experimental animals are identical with those of rheumatic fever of human beings. In this regard, the previous observation of Friedberg and Gross and of Middleton and McCarter that rheumatic heart disease and periarteritis nodosa not uncommonly occur in association is probably significant.

Rheumatic fever clinically resembles a true infection. The occurrence of multiple cases in the same families suggests cross infections rather than hereditary predisposition to a peculiar "rheumatic" allergy to hemolytic streptococci. Climate and a poor home environment also play too important a predisposing role to warrant accepting bacterial allergy as the explanation for one of the commonest and most crippling febrile illnesses in temperate zones. Until more convincing evidence is available, the allergy theory of rheumatic fever should continue to be regarded with considerable reservation and the search for another etiologic factor should not be halted."

George Bæhr, M. D.,
Abou Pollack, M. D.,
New York, New York.

(Acknowledgement is hereby made of permission by the American Heart Association to publish the above.)

To the doctors who are attempting to provide prepaid medical insurance plans, all those who are interested in the preservation of the high standards of medical care in this country and in the free enterprise system owe a great debt of gratitude. . . . We have an opportunity to prove beyond the shadow of a doubt the fact that the greatest social measures can be and will be initiated and effected by the people themselves without reliance upon socialized public economics.—Roy E. Larsen, President of Time, Inc.

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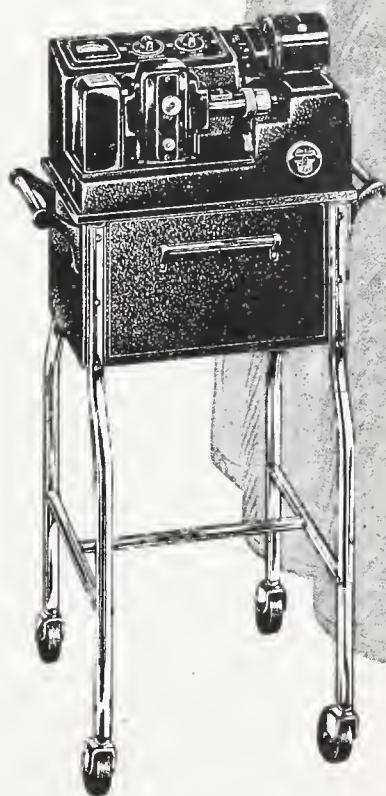
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TRENDS IN TUBERCULOSIS CONTROL PROCEDURES*

HERBERT R. EDWARDS, M. D.
New York, N. Y.

Haven Emerson, in a recent address on this subject, referred to the first epidemiologist, Hieronymus Fracastorius, and the clear description he gave of consumption in his classical volume "De Contagione," written in 1546. "Without the ability to see or identify the tubercle bacillus, he coined the expression "seminaria of disease," and wrote as follows: "These seeds are the carriers of the contagion, and that they are the first origin of the disease, there can be no doubt. It may be considered that the force of the disease lies in these seeds, since they have the power to propagate and reproduce their own kind."

"This wise and philosophical student of the mass manifestations of communicable disease wasted no time on environment, economic, social or racial factors. He found a disease of universal prevalence, the spread and continuity of which he knew to be due to the infection of the well by the sick, and he declared, with a convincing simplicity, that the need was to combat the germs and prevent contagion."

The momentous discovery of the tubercle bacillus by Koch, just over 60 years ago, clinched the earlier concepts of Fracastorius, and since then has clearly defined the methods by which the disease could be controlled. In fact, following Koch's discovery, it was believed that with the knowledge then available, tuberculosis could be eradicated in the early years of this century. It is doubtful whether this goal could have been reached with the tools then available. However, the adoption of the basic principles of case detection and isolation on a more intensive scale would have reduced the prevalence of the disease far below the present level.

These original principles still hold true today, and fortunately we are in a far better position to detect and isolate cases than ever before. It is a sad commentary on the medical profession and the public health worker that we have not made even greater strides with the knowledge that was at our disposal. There is little need to belabor our past deficiencies, but rather it is important to renew our efforts, so that a generation hence it cannot be said that we did not exploit our opportunities to the utmost.

The problem today is far less than it was a

decade ago, and materially less than it was at the turn of the century. These declines, since the turn of the century, have been consistent in all countries, greater in some than in others, but nevertheless, downward. The exceptions have been chiefly in those countries directly involved in the two World Wars. The encouraging note has been that following the restoration to normalcy, the rates have again declined.

In this country, we have been spared the rises noted in the warring countries, but in the past few years the rate of decline has been definitely slowed. The tremendous migration of population due to war activities has shifted the tuberculous population to areas that have migrated to those with higher rates. Despite these changes, there are an increasing number of counties in this country with no deaths from tuberculosis in several years, and on the whole we have continued to better our position. However, regardless of continued improvement, there are still many areas in this country with sizable tuberculosis problems, and many of them are still without adequate facilities to meet the obvious needs.

The major tuberculosis problem today is to be found in urban areas, and principally among the non-white population.

Today we have no method of providing permanent immunity to the disease. While primary infection with the tubercle bacillus usually runs a benign clinical course, and the majority so infected fail to eventually develop a reinfection form of the disease, we have no way of determining those that will and those that will not be safe. Therefore, it should be axiomatic in our efforts to eradicate tuberculosis, that infection at any time in the life span is fraught with danger and should be scrupulously avoided.

The basic element in treatment has been built around the factor of rest. It may be simple bed rest, or some one of the various forms of surgical interference. These procedures have saved many lives, but it would have been better at the outset to have prevented the infection that produced the disease. Chemotherapeutic measures have been tried, and for the most part have been found wanting. Streptomycin, the new antibiotic, apparently holds the greatest hope today. The recent reports by Hinshaw and Feldman on this material have been astounding. Their experiments with animals have shown a specific action on the tubercle bacillus in-vitro, and fragmentary reports on the use of the material in humans indicate perhaps the first evidence we

have ever had of a possible specific for the disease.

The experiments of these workers are based on the most meticulous scientific approach, and will give us information that it is believed will stand up under the trial of other workers who will be sure to follow. Should streptomycin prove to be the miracle drug we have searched for so long, there will be no cause to lessen any of our present efforts. It will still be necessary to search out the hundreds of thousands of individuals with active or latent disease who are in need of treatment, and it will also be important to keep them under supervision for a sufficient period of time to prevent a possible relapse.

There has grown up, over the years, the impression that the control of tuberculosis is a responsibility of the tax-supported agencies, such as health departments, sanatorium commissions and the like. It is true that these agencies, in most states and communities are charged by law to take such steps as are necessary to control communicable diseases. In many, effective programs have been developed, but there are still a large number who, for various reasons, have not met this problem. The new division of tuberculosis control in the U.S.P.H.S. is now in a position to lend material assistance to these areas, to the end that there will be a truly nationwide effort to eradicate tuberculosis. The oft-repeated axiom that no community is safe from tuberculosis until all communities are safe was never more true than it is today, for the trend of shifting populations throughout the country could easily create a problem that had not existed before.

There has been a tendency for the practicing physician to feel that with the development of mass case finding programs, the opening of tuberculosis clinics and the erection of hospital beds, that his efforts in this matter are of decreasing importance. If there is a physician who has this idea, he should change his attitude, because it has never been the objective of the public health agency to usurp his responsibility in this field.

The public health worker expects no more and no less of the private physician than he expects of any other citizen, i.e., prompt compliance with the law. The physician is expected by the public to pass on to them the advantages of our increase in knowledge in this subject. He is expected to give accurate diagnoses and treatment for disease, and he is furthermore expected

to prevent the spread of communicable disease from the sick to the well.

The basic concepts of good tuberculosis control have been centered around the following requirements contained in the Sanitary Code of the City of New York, and experience over a good many years has tended to emphasize their basic soundness.

1. Reporting of all forms of tuberculosis by physicians, hospitals, institutions and clinics within 24 hours of diagnosis. Such records are strictly confidential.
2. Isolation of patients with open tuberculosis that may spread the disease to others. If the physician cannot accomplish this, he is to report it to the Health Department, so that they can take action.
3. Exclusion of children or others from school, employment or such situations where they may spread their disease to others.
4. Exclusion of teachers or other school personnel with tuberculosis from public, private or parochial schools.
5. The requirement of a chest-X-ray, prior to appointment, and a two-year period thereafter, of all school personnel. The X-ray may be secured without cost from the Department, or if taken by a physician, it must be reviewed by the Department.
6. Forcible segregation of the non-cooperative or recalcitrant case of tuberculosis.
7. Prohibition of promiscuous expectoration.

To assist the physician, the Department offers free chest consultation services in 22 district clinics. These examinations are made with every modern facility, and unless the referring physician requests us to inform his patient of the diagnosis, this important responsibility is left to him. Many prefer that we immediately assume full responsibility in such matters. Approximately 15,000 cases are referred by the physician each year to these clinics, and among them, about five percent will reveal significant lesions of chronic pulmonary tuberculosis. This is one of the most potent sources of case finding in our experience, and is an excellent example of the value and benefits of a cooperative effort.

Our laboratories provide a free bacteriological service through some 400 collection stations scattered over the city. Concentrations of sputum are routine, with cultures of sputum or gas-

tric washings on request. Suitable dilutions of tuberculin are available for the asking.

The Department offers public health nursing service to all cases, whether under clinic or private care. It is a requirement for our nurse to make a visit to the home of every new case reported by the private physician. The purpose of this visit is to acquaint us with the conditions in the home that favor or limit proper sanitary control. It is also an opportunity for the nurse to submit to the doctor a report, pointing out the conditions she finds. While we are willing

to leave the case under the care of a physician, it is with the understanding that he will take the necessary precautions to educate the patient and the family in proper sanitary control. If for any reason such steps are not taken, we would feel it our responsibility to return to the home, and if necessary, take the indicated steps.

It is common knowledge that the physician does not report all cases of tuberculosis known to him as required by law. This is not peculiar to New York City, but exists in every community. In some instances, it is due to neglect, and in too many it is probably deliberate. There are others in which the physician is unwilling to make a diagnosis, unless the sputum of the patient shows tubercle bacilli. The fact that the patient has reasonably clear-cut symptoms and an obvious lesion by chest X-ray seems to make little or no difference. There are some who just do not want the Department of Health to know the case exists, for fear of stigmatizing the patient, or for the supervisory steps that he should follow in the discovery of any case. This is unfortunate, because cases do not always remain under the care of a single physician. On leaving his care, they may or may not place themselves under other medical care. This is a real problem, and it is well indicated in our six months interval census report secured from physicians who presumably have cases under their care. At such times we find approximately 18% of cases previously reported under their care who have not been seen by him for a period of six or more months. Their danger in the home and in the community can only be surmised, but obviously they have been a serious menace to others and should be controlled. Primarily, the fact that the law requires cases to be reported, should, of itself, be a sufficient incentive for the physician to report his case, but above and beyond that, it is his moral and professional responsibility to the individual and the community.

Case Finding

This is basic in tuberculosis control. The development of the mass surveys of large groups in recent years has greatly accelerated our ability to detect cases. These surveys are revealing a majority of minimal lesions. Some represent early disease, but the majority of them are indicative of previous encounters in which the patient has won the battle. We do not know how completely this battle has been won without periodic supervision. As most of these cases are asymptomatic, deny exposure and appear in excellent health, there is a tendency to discharge them from further supervision. These lesions should always be considered as important in pre-adolescence and young adult life, despite the innocuous appearance of the X-ray shadow. Their significance is even greater in the non-white population. Until we find a more accurate method of evaluating X-ray shadows, it is wise to keep all individuals with parenchymal lesions under supervision from six months to one year. It should always be borne in mind that an examination or X-ray at a given period tells only what exists at that time. The future is always indefinite, so far as tuberculosis is concerned.

As a result of the mass surveys in New York City over the past several years, in which we have examined thousands of persons with so-called minimal lesions, we have arrived at a point where we can, with reasonably clear distinction, evaluate X-ray shadows into two major groups. First, there are those with changes characteristic of fibrosis and calcification, and second, those ranging from an exudative to an exudative-productive type of shadow. We have found that the former remain stable in the majority of instances, whereas in the latter, instability may range as high as 60%. It has taken us considerable time to arrive at a point where we are willing to make even these broad distinctions, and not infrequently our surmise is incorrect. We have adopted the following general principles in attempting to evaluate these lesions.

1. Visualization of the lesion. As some of these lesions are in the upper part of the lung and underline the bony structure, they cannot be clearly visualized in ordinary P.A. X-ray exposure. It then becomes necessary to secure A.P., lordotic or other special positions to bring the lesion into clear view. Even though it may tend to exaggerate the lesion, it is, nevertheless, a much easier method by which to study its characteristics. The fluoroscope is of great value in pre-determining the angle of optimum exposure. Ob-

viously, once a special position is found that gives the best view, it should be repeated, so that reasonably accurate comparisons of the series can be made as time passes.

2. Periodic roentgenograms. The period in which such views should be made will depend upon many factors, age, race and general "hardness" or "softness" of the lesion. Any lesion in adolescence or young adult life is important, and more so in the non-white individual. If the lesion is of recent origin, regardless of the age of the patient, it is always important. At the outset, the examination should be at two month intervals for the first six months, at three month intervals for the next six months, and at six month intervals until a full two years of supervision have been completed. Obviously, the individual case, his background, age, race and other individual characteristics will alter this procedure.

3. Bacteriological studies. If sputum is available, it should be examined by the concentrate method, and if negative, should be cultured. If sputum is not available, gastric washings should be examined and cultured. In many cases it may be most desirable to resort to guinea pig inoculations to determine the pathogenicity of the acid fast bacilli found.

4. Other examinations. Careful and complete history is essential, with emphasis on familial history, exposure and previous episodes that might be related to tuberculosis. Physical examination is important, even though many of these cases reveal no abnormalities. The tuberculin test is of great value if found to be negative. The histoplasmin test, particularly in endemic areas, should be considered, and the coccidioidin test, where the individual has lived in endemic areas.

The mass survey plan of case finding will probably always be the responsibility of government or the voluntary agency. There is no reason, however, why these efforts should in any way exclude the private physician from participating. In fact, these surveys have brought thousands of cases to the attention of the physician that he would never have seen otherwise. This experience is changing his attitude towards tuberculosis in a very material way, as we have seen in our chest consultation services in New York City. In 1929, when these services were started, approximately a third of all cases referred were found to have significant tuberculosis. In 1933, we started mass surveys, and up until 1946 well over a million persons have been so examined in New York City. We now find in 1945 that the percentage of significant tuberculosis, referred

by physicians, has fallen to five percent. Obviously the physician is no longer waiting for clear-cut symptoms before he becomes suspicious of tuberculosis, but is now referring more cases with questionable, clinical and physical findings.

While mass surveys have been the new dramatic approach to tuberculosis control, they in no way supersede some of the old basic criteria upon which we have always depended to detect tuberculosis. In this connection, the private physician is in a strategic position, for he sees in his practice every day a number of individuals for various complaints that should also be considered as potential, if not actual, tuberculosis problems. The ideal approach for him would be to fluoroscope the chest of every patient that comes to his office, or better still, to make a chest roentgenogram.

Unfortunately, this utopia is not possible at this time, because chest X-rays are not readily and easily available in the physician's office nor in the community. There is no reason, however, why the tax-supported agencies should not assume some of this responsibility by setting up chest diagnostic clinics for the use of the physician. They should be operated without cost to the physician or patient, and should be adequate to accommodate all suspicious cases that come to his attention. Such services connected with hospitals and sanatoria are ideal, and are being adopted more and more throughout the country. The chest X-ray is a basic essential in modern case finding and supervision, and ways must be found to make this service available to all requiring it, for the purpose of arriving at a clear diagnosis.

Among the types of patients that will be presumptive of new cases of tuberculosis may be listed the following:

1. Those with suspicious symptoms referable to the respiratory tract.
2. Contacts to known open cases or recent deaths of the disease.
3. Diabetes.
4. Racial or economic groups that show a high instance of the disease.
5. Industrial workers exposed to silica dust.
6. Pupil nurses, medical students and hospital personnel.
7. All admissions to hospitals or institutions.

Of the foregoing groups, perhaps some special attention should be given to those considered as

contacts. There is evidence to show that it is desirable to examine any person with a family history with tuberculosis, regardless of the presumed activity or stability of the disease in the other family member, but the most immediate concern should be those exposed to known open cases.

Infants are particularly susceptible to infection, and are at the greatest danger in the first year of life. Curiously enough, this danger becomes less, though still great until they reach their fourth year. If they have not developed a manifest lesion by that time, in all probability they will not until they reach adolescence. Children between 4 and 12 years, who have been in contact with tuberculosis, and who have no manifest disease, will also tend to remain free until adolescence. It should not be implied that infection is not dangerous during this period, because a basic concept of tuberculosis should be that infection is dangerous at all ages. From 12 years of age on to young adult life, the hazard increases markedly, and if they are exposed during that time, or if they have been exposed and have a positive tuberculin, they should be periodically supervised, and have a chest X-ray at least every six months until 25 to 30 years of age.

In conclusion, I wish to point out that tuberculosis is still a major problem of the public health in many states and communities, and until the deaths are reduced to rates of 10 per 100,000 or less, it will require an energetic campaign.

The campaign is a responsibility of the practicing physician, as well as the tax-supported or voluntary agencies. It will only be by an integration of their various facilities that we can hope to search out the active and latent cases that, if detected, will produce the tuberculosis of tomorrow. This vicious circle of events of the past can be broken if we so will to do.

* Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

OBITUARY

VERNON MacCAMMON, aged 70 years, died following a heart attack, January 6th at his home in Arkansas City.

Dr. MacCammon was a native of Franklin County, Indiana. He was the son of the late

Mr. and Mrs. Philander MacCammon and a nephew of the late Dr. G. B. Buckingham, in whose office Dr. MacCammon got his inspiration to study medicine. His brother, now deceased, Dr. Wilbur MacCammon, was a practicing physician in Indianapolis many years.

Dr. MacCammon had been a resident of Arkansas City for 46 years. Following graduation he served as assistant surgeon during the Spanish-American War. Upon leaving the Army he located in Louisiana and practiced there a short time. He came to Arkansas City in 1900. He served on the Medical Examining Board of the Arkansas State Board of Medical Examiners and was local surgeon of the Missouri Pacific Railroad until his death. He was examiner for the local draft board of Desha County during World War I.

He was a member of the School Board and had for many years served as a commissioner of the Cypress Creek Drainage District and the Southeast Arkansas Levee District. He is survived by his wife, of Arkansas, the former Mattie Morris of Louisiana.

THOMAS Z. JOHNSON, aged 75, of Walnut Ridge, died March 2nd. A graduate of Memphis Hospital Medical College in 1902, he was a member of the Lawrence County Medical Society and of the Arkansas Medical Society, of the Masonic bodies and the Woodmen of the World. He was a past-president of the Lawrence County Medical Society. Surviving him is his wife.



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W. R. BROOKSHER, M. D., Editor
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EDITORIAL

ANNUAL SESSIONS

The Seventy-First Annual Session of the So-
ciety will convene at the Robinson Auditorium,
Little Rock, April 17th, 18th and 19th. This
marks the first venture of the Society into the
use of a major auditorium for the sessions of the
Society but it should prove successful in the
opportunity it presents for the employment of
adequate space for meeting rooms, exhibits and
registration. Some of the distractions incident
to meetings within hotels should be avoided by
holding the scientific sessions apart from hotel
lobbies. The House of Delegates will meet
Thursday afternoon, April 17th, another innova-
tion and the first morning session will be a
scientific meeting. No other changes in the
usual order of the program is contemplated.
Dr. H. H. Shoulders, Nashville, Tennessee, Presi-
dent of the American Medical Association, will
address the public meeting Thursday evening,
April 17th. The Pulaski County Medical Society
will entertain at a buffet dinner and dance the
evening of Friday, April 18th. The preliminary
program and announcements are printed in this
issue. The Committee on Scientific Work has
arranged a well-balanced program which should

appeal to all of the membership. Hotel facilities
continue taxed and those who expect to attend
are urged to make advance reservations.

VETERANS ADMINISTRATION MEDICAL CARE PROGRAM

The Veterans Administration has placed into
operation Part I of the contract between the
Arkansas Medical Society and the Veterans Ad-
ministration covering examination and medical
care to veterans in the state. The full contract
and fee schedule was published in the December
issue of The Journal. It is apparent that a num-
ber of the members have not elected to com-
plete and return the form signifying their desire
to participate in the program. Under the plan,
only those members of the Society who have so
signified their desire to participate may become
active in the provision of medical care to
veterans. Members who have overlooked com-
pletion of the form may obtain one from the
state secretary.

The forms in use and the administrative pro-
cedures employed in authorization are simple
as it seems possible to evolve in a governmental
program. The cooperation of our members in
following instructions as given will avoid useless
correspondence and delays incident to procure-
ment of authority to furnish treatment and in
receipt of payment for such services. Attention
is again directed to the important fact that
treatment must first be authorized by the
Regional Office, Veterans Administration, Fed-
eral Building, Little Rock, before payment for
services can be made.

RANDOM THOUGHTS OF THE SECRETARY

February 21st. In attendance with Councilor Hunt at
the second meeting of the re-organized Logan County
Medical Society over which Paul McConnell presides with
fitting dignity and where the discussions follow a standard
pattern, Dickey deviating in his dress for the occasion, an
interne's suit with a leather shooting jacket.

February 25th. With a sigh over the work
which has been necessary since April, 1946, we
greet the unofficial announcement that the
Veterans Administration program of medical
care is now in effect.

February 24th. For the first time in years,
the work of today has been completed today,
a happy feeling even if it might indicate that
a recession is in process.

March 3rd. 3-3-33 is 14 today and with a condescend-
ing spirit, joints his elders, including Amis, in celebrating
the event at Stinsons, where tonight's steaks are better
than any pre-war cut we can recall.

PROCEEDINGS OF SOCIETIES

Benton County Medical Society met in dinner session at Rogers March 13th for the following program: "Blood Transfusion," S. M. Wilson, Rogers.

G. C. DeBolt, Secretary.

The Hot Spring County Medical Society has elected the following officers: President, W. G. Hodges; Vice-president, W. F. Barrier; Secretary-treasurer, C. S. Pool; Delegate, T. L. Hodges, and Alternate, C. F. Peters.

Lincoln County Medical Society has elected the following officers: President, C. W. Dixon, Gould; Vice-president, B. L. Bailey, Star City; Secretary-treasurer, B. M. Gardner, Star City; Delegate, B. M. Gardner, and Alternate, C. W. Dixon.

Lawrence County Medical Society has elected the following officers: President, J. C. Land; Vice-president, H. B. Hull; Secretary-treasurer, Chas. D. Tibbels; Delegate, W. W. Hatcher, and Alternate, J. C. Land.

Howard-Pike County Medical Society has elected the following officers: President, H. H. Holt; Vice-president, F. F. Ferguson; Secretary-treasurer, M. D. Duncan; Delegate, W. H. Toland, and Alternate, E. V. Dildy.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro March 6th for the following program: "The Rice Diet for the Treatment of Nephritis and Hypertension, Drs. Poole and Overstreet, and "Diseases of the Arteries and Their Electrocardiographic Findings," W. F. Shepherd.

J. H. McCurry, Secretary.

Miller County Medical Society has elected the following officers: President, J. Brooks Tate; Vice-president, R. R. Kirkpatrick; Secretary-treasurer, W. B. Harrell; Delegate, H. E. Murry, and Alternate, L. J. Kosminsky.

Polk County Medical Society has elected the following officers: President, Edward Meiers, Mena; Vice-president, C. A. Campbell, Mena; Secretary-treasurer, Frank A. Norwood, Mena; Delegate, Pierre Redman, Mena; and Alternate, Frank A. Lee, C. Vandervoort.

Clark County Medical Society has elected the following officers: President, C. K. Townsend; Secretary-treasurer, Joe W. Reid; Delegate, Joe W. Reid, and Alternate, C. K. Townsend.

Montgomery County Medical Society has elected the following officers: President, J. H. McLean; Vice-president, J. B. Steuart; Secretary-treasurer, G. E. Watkins; Delegate, J. H. McLean, and Alternate, G. E. Watkins.

LaFayette County Medical Society has elected the following officers: President, F. E. Baker; Secretary-treasurer, A. W. Keith; Delegate, R. L. Armstrong, and Alternate, J. A. Harel.

The Ouachita County Medical Society was delightfully entertained at dinner March 6, by the Camden Clinic at the home of Dr. and Mrs. J. B. Jameson in Camden. The following speakers furnished the scientific program:

"Congenital Toxipiasmosis," George Wolfe, Shreveport, and "Survey of Cancer Problem and Surgical Management," Wallace Brown, Shreveport.

The Society voted to hold a cancer clinic in Camden March 28.

R. B. Robins, M. D., Secretary.

Monroe County Medical Society has elected the following officers: President, M. L. Dalton, Brinkley; Vice-president, W. H. Martin, Holly Grove; Secretary-treasurer, E. D. McKnight, and Alternate, W. H. Martin.

PERSONALS AND NEWS ITEMS

S. C. Fulmer, Little Rock, addressed the Medical Association of the Missouri Pacific Railroad at St. Louis March 20th on "Coronary Artery Disease in Railway Employees."

D. B. Stough, Hot Springs National Park, has been appointed Garland County Chairman for the Easter Seals campaign.

Among these registered at the New Orleans Postgraduate Medical Assembly in February were Chas. H. Lutterloh, Hot Springs National Park; W. L. Shippey, Fort Smith; L. D. Massey, Osceola, and H. Fay. H. Jones, Little Rock.

Married—On February 22nd, in St. Louis, Roscoe F. Morton, Dumas, and Miss Jane Tolliver, Carthage, Missouri. Dr. Morton has been recently released from military service and is

serving a residency in internal medicine at City Hospital, St. Louis.

S. P. Stubbs, Jr., Fort Smith, has been appointed medical officer and assigned to the Fort Smith office of the Veterans Administration.

R. B. Robins has been elected president of the Camden Civic Music Association.

Dr. and Mrs. E. L. Collette, Rogers, spent a recent vacation in Mexico.

A \$300,000 bond issue has been voted to erect a 75-bed general hospital at Monticello, to be known as the Drew County Memorial Hospital.

Louis A. Cohen, Little Rock, has been appointed to the National Advisory Council, National Jewish Hospital, Denver, Colorado.

Joe F. Rushton, Magnolia, has been appointed to the State Hospital Board of Control.

J. B. Jameson and R. B. Robins have been elected directors of the Camden Chamber of Commerce.

Capt. W. Myers Smith, Little Rock, is now assigned to the American Embassy, San Salvador, El Salvador.

Save the Easy Way

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PRELIMINARY PROGRAM AND ANNOUNCEMENTS

SEVENTY-FIRST ANNUAL SESSION ARKANSAS MEDICAL SOCIETY

ROBINSON AUDITORIUM

Little Rock, Arkansas

April 17, 18 and 19, 1947

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COUNCILORS AND COUNCILOR DISTRICTS

Euclid M. Smith, Chairman, Hot Springs
First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. P. W. Lutterloh, Jonesboro. Term of office expires 1947.
Second District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. M. C. Hawkins, Jr., Searcy. Term of office expires 1948.
Third District—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, Saint Francis and Woodruff counties. J. O. Rush, Forrest City. Term of office expires 1947.
Fourth District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. M. C. Crandall, Wilmot. Term of office expires 1948.
Fifth District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. J. H. Wilson, Magnolia. Term of office expires 1947.
Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. R. C. Dickinson, Horatio. Term of office expires 1948.
Seventh District—Clark, Garland, Hot Spring, Montgomery and Saline counties. Euclid M. Smith, Hot Springs National Park. Term of office expires 1947.
Eighth District—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. Ellery C. Gay, Little Rock. Term of office expires 1948.
Ninth District—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. J. G. Gladden, Harrison. Term of office expires 1947.
Tenth District—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Earle H. Hunt, Clarksville. Term of office expires 1948.

EX-OFFICIO COUNCILORS

H. King Wade, President, Hot Springs
L. T. Evans, President-Elect, Batesville
Paul L. Mahoney, Treasurer, Little Rock
W. R. Brooksher, Secretary, Fort Smith

COMMITTEES

(Appointments expire with the annual session of the year indicated.)

SCIENTIFIC WORK—Chas. H. Lutterloh, Chairman, Hot Springs National Park (1949); Hoyt R. Allen, Little Rock (1948); C. S. Moss, Hot Springs National Park (1947); R. J. Calcote, Little Rock (1949); Jos. B. Wharton, El Dorado (1949); W. R. Brooksher, Fort Smith (ex-officio).

MEDICAL LEGISLATION—Jos. F. Shuffield, Chairman, Little Rock (1949); M. L. Norwood, Lockesburg (1949); W. K. Smith, Hot Springs National Park (1947); M. E. McCoskill, Little Rock (1949); D. L. Owens, Harrison

- (1949); S. J. Allbright, Searcy (1949); L. T. Evans, Batesville (1949); W. H. Toland, Nashville (1948); L. H. McDaniel, Tyronza (1949).
- MEDICAL EDUCATION AND HOSPITALS**—Euclid M. Smith, Chairman, Hot Springs National Park (1949); J. K. Walker, Pine Bluff (1947); A. S. Buchanan, Prescott (1948); Gaston A. Hebert, Hot Springs National Park (1949); H. Clay Chenault, Little Rock (1949); O. C. Melson, Little Rock (1949); F. A. Corn, Little Rock (1949).
- HEALTH AND PUBLIC INSTRUCTION**—T. T. Ross, Chairman, Little Rock (1947); Byron L. Robinson, Little Rock (1948); Ross Fowler, Harrison (1947); Paul T. Stroud, Jonesboro (1949); R. E. Smallwood, Arkadelphia (1949).
- MEDICAL ECONOMICS**—H. E. Mobley, Chairman, Morrilton (1948); Roy I. Millard, Russellville (1947); M. L. Norwood, Lockesburg (1948); John Sneed, Conway (1949).
- SCIENTIFIC EXHIBIT**—H. A. Causey, Chairman, Pine Bluff (1949); Jeff Banks, Little Rock (1948); *Paul C. Eschweiler, Little Rock (1949); Ralph E. Crigler, Fort Smith (1947).
- NECROLOGY**—W. H. Mock, Chairman, Prairie Grove; C. W. Dixon, Gould; Fred Youngblood, Huntsville; E. F. Ellis, Fayetteville; S. W. Douglas, Eudora; W. G. Hodges, Malvern.
- CANCER CONTROL**—Fred Hames, Chairman, Pine Bluff; R. H. Willett, Jonesboro; D. A. Rhinehart, Little Rock; L. P. Good, Texarkana; S. A. Drennen, Stuttgart; C. A. Archer, Jr., Conway; Fred H. Krock, Fort Smith; Henry G. Hollenberg, Little Rock; J. G. Gladden, Harrison; D. E. White, El Dorado; Porter Rodgers, Searcy.
- MATERNAL AND CHILD WELFARE**—I. F. Jones, Chairman, Fort Smith; Don Smith, Hope; E. C. McMullen, Pine Bluff; G. D. Murphy, Jr., El Dorado; Clyde D. Rodgers, Little Rock; John M. Proctor, Hot Springs National Park; M. C. Crandall, Wilmot.
- HEART**—Chas. T. Chamberlain, Chairman, Fort Smith; G. W. Parson, Texarkana; A. A. Blair, Fort Smith; E. Driver Rowland, Hot Springs National Park; Alan A. Gilbert, Fayetteville.
- CONTROL OF SYPHILIS**—Louie G. Martin, Chairman, Hot Springs National Park; D. W. Goldstein, Fort Smith; H. J. Mayfield, El Dorado; W. C. Hays, Jr., Marianna; C. E. Kitchens, DeQueen.
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- AUXILIARY**—L. K. Hundley, Chairman, Pine Bluff; A. C. Shipp, Little Rock; H. Fay H. Jones, Little Rock; H. T. Smith, McGehee; G. C. Coffey, Hot Springs National Park; J. F. Jackson, Newport; D. C. Lee, Hot Springs National Park.
- STUDY OF MIDWIFERY**—J. P. Price, Jr., Chairman, Monticello; W. H. Martin, Holly Grove; T. H. Jones, Waldo.
- LIAISON WITH THE ARKADELPHIA TUBERCULOSIS ASSOCIATION**—A. C. Shipp, Chairman, Little Rock; J. D. Riley, State Sanatorium; J. F. Williams, Texarkana; S. C. Fulmer, Little Rock; R. C. Dickinson, Horatio; R. M. Kelly, Lonoke; C. K. Townsend, Arkadelphia.
- INDUSTRIAL HEALTH**—A. D. Cathey, Chairman, El Dorado; J. B. Jameson, Camden; W. V. Newman, Little Rock; J. Harry Hayes, Little Rock; W. F. Barrier, Malvern; H. E. Murry, Texarkana.
- MENTAL HYGIENE**—A. C. Kolb, Chairman, Little Rock; Geo. B. Fletcher, Hot Springs National Park; Pat Murphey, Little Rock; Elizabeth Fletcher, Little Rock; R. F. Darnall, Little Rock; Robert Watson, Little Rock; Louis A. Cohen, Little Rock.
- ADVISORY TO STATE INSTITUTIONS**—R. B. Robins, Chairman, Camden; J. B. Jameson, Camden; L. J. Harrell, Prescott; Jos. F. Shuffield, Little Rock; M. C. Hawkins, Jr., Searcy.
- MEDICAL SERVICE AND PUBLIC RELATIONS**—Chas. R. Henry, Chairman, Little Rock; H. A. Higgins, Little Rock; A. G. Cazort, Little Rock; *S. A. Thompson, Camden; B. L. Moore, El Dorado; P. W. Lutterloh, Jonesboro.
- MILITARY AFFAIRS**—Jos. H. Sanderlin, Chairman, Little Rock; Frank M. Burton, Hot Springs National Park; A. H. Hathcock, Fayetteville; G. D. Murphy, Jr., El Dorado; Foster Jarrell, Hot Springs National Park; W. A. Butts, Helena; W. G. Eberle, Fort Smith.
- RURAL HEALTH**—A. S. Buchanan, Chairman, Prescott; L. H. McDaniel, Tyronza; Jabez F. Jackson, Newport; J. O. Rush, Forrest City; J. P. Price, Jr., Monticello; G. F. McLeod, Magnolia; Joe W. Reid, Arkadelphia; Lamar McMillan, Little Rock; J. G. Gladden, Harrison; Fount Richardson, Fayetteville.
- VETERANS ADMINISTRATION MEDICAL CARE PROGRAM**—D. H. Autry, Chairman, Little Rock; Fred H. Krock, Fort Smith; Henry G. Hollenberg, Little Rock; Euclid M. Smith, Hot Springs; Harvey Shipp, Little Rock.

* Deceased.

LOCAL COMMITTEE

T. D. Brown, Chairman
D. H. Autry
Jeff Banks

ANNOUNCEMENTS

REGISTRATION

The registration desk will be located on the ground floor, Robinson Auditorium, Garland Avenue entrance, and will be open from 8:00 A. M. to 4:00 P. M., Thursday, April 17th and Friday, April 18th, and from 8:00 A. M. to 1:00 P. M., Saturday, April 19th. Delegates are requested to register as early as possible, presenting credentials at the time of registration. Credentials presented at the Special Session of the House of Delegates, January 26, 1947, have been retained and will be accepted in lieu of new credentials. Delegates who did not present credentials at this Special Session should present credentials in proper form. Members and visitors are required to register as admission to all sessions will be by badge. Bring your 1947 membership card to facilitate registration. Members of the American Medical Association from other states may register as guests.

MEETINGS OF THE COUNCIL

The Council of the Arkansas Medical Society, including the Past-Presidents, will meet at 12:15 P. M., April 17th and 18th in Room 207, mezzanine floor, Hotel Marion, and at 12:15 P. M., April 19th, in the Herman Kahn room, mezzanine floor, Hotel Marion.

PAST-PRESIDENT'S BREAKFAST

The Past-President's breakfast will be held in Parlor "B," mezzanine floor, Hotel Marion, at 7:30 A. M., April 19th.

ALUMNI LUNCHEONS

The Alumni Association of the University of Arkansas School of Medicine will have a luncheon meeting at the Hotel Marion April 18th.

The Class of 1932, University of Arkansas School of Medicine will hold a luncheon meeting Friday, April 18th.

at 12:15 P. M. in Room 212, Hotel Marion.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Friday Morning, April 18th, 9:30 A. M.

Mezzanine Floor, Hotel Marion

Chairman—E. C. Moulton, Fort Smith

Secretary—K. W. Cosgrove, Little Rock

Chairman's Address—"Leiomyoma of the Iris," E. C. Moulton, Fort Smith

"Non-Congenital Cataracts in Juveniles," Raymond Cook, Little Rock

"Submucous Resection," Samuel Fomon, Director, Plastic Surgery, Manhattan General Hospital, New York

Business session.

Luncheon with round-table discussion.

GENERAL SESSION

Thursday Morning, April 17th, 9:30 A. M.

Robinson Auditorium

9:30 A.M.—Invocation—Rev. J. F. Queen, Chaplain, Baptist State Hospital, Little Rock.

9:35 A.M.—Address of Welcome—R. E. McLochlin, President, Pulaski County Medical Society, Little Rock.

9:40 A.M.—Response to Address of Welcome—Julius H. Hellums, Dumas.

9:45 A.M.—"Primary Tularemia of the Lung Masquerading Other Forms of Lung Pathology," Major H. E. Cluxton, Jr., Major Eugene E. Clifton and Lieutenant John A. Worley, M. C., A. U. S., Army and Navy General Hospital, Hot Springs National Park.

10:05 A.M.—"Our Present Concepts of the Rh Factor and Their Clinical Application," John C. Faris, Jonesboro.

10:25 A.M.—"Organic Causes of Vomiting in the First Six Months of Life," F. E. Shearer, Fort Smith.

10:45 A.M.—Intermission for Review of Exhibits.

11:00 A.M.—"Disorders of the Female Bladder: Classification and Treatment," George C. Coffey, Hot Springs National Park.

11:20 A.M.—"Renal Pathology in the Making," T. Leon Howard, Past-President, American Urological Association; Professor of Urology, University of Colorado School of Medicine, Denver.

HOUSE OF DELEGATES

Thursday Afternoon, April 17th, 1:30 P. M.

Robinson Auditorium

Presiding, H. King Wade, President.

Calling meeting to order.

Roll Call of Delegates.

Report of Credentials Committee.

Introduction of Fraternal Delegates.

Adoption of Minutes of the Seventieth Annual Session, published in the June, 1946, issue of The Journal of the Arkansas Medical Society, and of the January 26, 1947, Special Session, published in the March, 1947, issue of The Journal of the Arkansas Medical Society.

Appointment of the Reference Committee.

President's Address to the House of Delegates.

REPORT OF COMMITTEES

(Limited to ten minutes by the House of Delegates, 1942 session.)

Arrangements—T. D. Brown, Chairman

Scientific Work—Chas. H. Lutterloh, Chairman

Medical Legislation—Jos. F. Shuffield, Chairman

Medical Education and Hospitals—Euclid M. Smith, Chairman

Health and Public Instruction—T. T. Ross, Chairman

Medical Economics—H. E. Mobley, Chairman

Scientific Exhibit—H. A. Causey, Chairman

Necrology—W. H. Mock, Chairman

Cancer Control—Fred Hames, Chairman

Heart—Chas. T. Chamberlain, Fort Smith

Study of Midwifery—J. P. Price, Jr., Chairman

Maternal and Child Welfare—I. F. Jones, Chairman

Postgraduate Study—D. A. Rhinehart, Chairman

Auxiliary—L. H. Hundley, Chairman

Control of Syphilis—Louie G. Martin, Chairman

Liaison with the Arkansas Tuberculosis Association—A. C. Shipp, Chairman

Industrial Health—A. D. Cathey, Chairman

Mental Hygiene—A. C. Kolb, Chairman

Medical Service and Public Relations—Chas. R. Henry, Chairman

Advisory Committee to State Institutions—R. B. Robins, Chairman

Military Affairs—Jos. H. Sanderlin, Chairman

Rural Health—A. S. Buchanan, Chairman

Veterans Administration Medical Care Program—D. H. Autry, Chairman

Report of the State Medical Board of the Arkansas Medical Society—L. J. Kosminsky, Secretary

Report of the Arkansas State Cancer Commission—C. A. Rosenbaum, Secretary

Report of the Delegates to the American Medical Association—L. J. Kosminsky

Report of the Council—Euclid M. Smith, Chairman

Report of the Treasurer—Paul L. Mahoney

Report of the Secretary—W. R. Brooksher

New Business

Selection of the Nominating Committee

Selection of Nominees for Appointment to the State Medical Board of the Arkansas Medical Society

The Society will nominate three members in each of the following Congressional Districts for submission to the Governor for appointment to terms which now expire in June, 1947.

First—Clay, Greene, Craighead, Mississippi, Poinsett, Cross, Crittenden, Woodruff, Saint Francis, Lee and Phillips counties. Present board member, R. J. Haley, Jr., Paragould, ineligible to reappointment.

Fourth—Crawford, Sebastian, Logan, Scott, Polk, Montgomery, Howard, Pike, Sevier, Little River and Miller counties. Present board member, L. J. Kosminsky, Texarkana.

Fifth—Franklin, Johnson, Pope, Conway, Faulkner, Pulaski, Perry and Yell counties. Present board member, Robert Hood, Russellville, ineligible to reappointment.

Thursday Evening, April 17th, Public Meeting

Robinson Auditorium — 8:00 P. M.

Invocation—Rev. R. D. Adams, First Presbyterian Church, Little Rock

Welcome Address—R. E. McLochlin, President, Pulaski County Medical Society, Little Rock

Introduction of H. King Wade, President, Arkansas Medical Society, Hot Springs National Park

"Some Problems in the Economics of Medical Care," Harrison H. Shoulders, President, American Medical Association, Nashville, Tennessee

Benediction—Rev. R. D. Adams

SCIENTIFIC SESSION

Friday Morning, April 18th, 9:00 A. M.

Robinson Auditorium

Presiding, H. King Wade, President.

9:00 A.M.—"Early Ambulation," John H. Pinson, Jr., El Dorado.

9:20 A.M.—"This Problem of Neurosis," Joe Verser, Harrisburg.

- 9:40 A.M.—"The Diagnosis and Treatment of Disorders of the Lung Requiring Surgical Resection," J. K. Donaldson, Little Rock.
- 10:00 A.M.—Symposium on Hypertension.
- 10:00 A.M. (1)—"The Physiology of Hypertension," A. H. Lawton, Assistant Professor of Physiology and Pharmacology, University of Arkansas School of Medicine, Little Rock.
- 10:20 A.M. (2)—"The Medical Management of Hypertension," E. Driver Rowland, Hot Springs National Park.
- 10:40 A.M. (3)—"The Surgical Management of Hypertension," Geza de Takats, Associate Professor of Surgery, University of Illinois, Chicago.
- 11:20 A.M.—Question and Answer Period on Above Symposium (Limited to twenty minutes). O. C. Melson, Little Rock, Moderator.

MEMORIAL SERVICES

Friday Morning, April 18th

Robinson Auditorium — 11:40 A. M.

(Joint session with the Woman's Auxiliary to the Arkansas Medical Society.)

Presiding, H. King Wade

Invocation—Rev. E. W. Callies, Grace Lutheran Church, Little Rock

Vocal Solo—"Turn Unto Me" (Dvorak)—Mrs. C. H. Killian, Mrs. Conrad Farell, accompanist

Memorial Address—W. H. Mock, Chairman, Committee on Necrology, Prairie Grove

Vocal Solo—"The Twenty-Third Psalm" (Mallotte), Mrs. C. H. Killian, Mrs. Conrad Farell, accompanist

Benediction—Rev. E. W. Callies, Little Rock

IN MEMORIAM

John Cullen Beard, Pine Bluff, May 7, 1946

Louis Marshall Smith, Russellville, June 5, 1946

E. V. Dildy, Nashville, June 6, 1946

James Allen Robinson, Cincinnati, June 16, 1946

John T. McLain, Gurdon, June 20, 1946

James L. Dibrell, Little Rock, July 2, 1946

James Pinkney Clemens, Stephens, August 5, 1946

Paul C. Eschweiler, Little Rock, August 25, 1946

Anthony C. Thiollie, North Little Rock, September 2, 1946

Samuel J. McGraw, El Dorado, September 6, 1946

Leonard R. Boen, Clarksville, September 11, 1946

James I. Thompson, Yellville, September 11, 1946

Louis S. Dunaway, Jr., Conway, September 18, 1946

John S. Agar, Jr., Little Rock, October 15, 1946

Samuel A. Thompson, Camden, November 24, 1946

John R. Lynn, Hazen, December 2, 1946

William J. Curry, Rogers, January 4, 1947

Vernon MacCammon, Arkansas City, January 6, 1947

Frank Nisbett, Brookland, January 11, 1947

James C. Blackwood, Eureka Springs, January 22, 1947

Ira W. Ellis, Monette, January 27, 1947

William D. Freeman, Mount Ida, February 3, 1947

Shelby Justus, Swifton, February 16, 1947

Thomas Z. Johnson, Walnut Ridge, March 3, 1947

Thos. J. Hudson, Luxora, March 20, 1947

Friday Afternoon, April 18th, 2:00 P. M.

Robinson Auditorium

2:00 P.M.—President's Address, H. King Wade, Hot Springs National Park

2:20 P.M.—"President Trends of Medical Education in Arkansas," H. Clay Chenault, Dean and Vice-President, University of Arkansas School of Medicine, Little Rock.

2:40 P.M.—"The Evolution of Vitamin M (Folic Acid)," Paul L. Day, Professor of Physiological Chemistry, University of Arkansas School of Medicine, Little Rock.

icine, Little Rock.

3:00 P.M.—"The Common Anemias and Their Mechanism," S. T. W. Cull, Professor of Medicine, University of Arkansas School of Medicine, Little Rock.

3:20 P.M.—Intermission for Review of Exhibits.

3:35 P.M.—"Cancer of the Stomach," J. Donald Hayes, Little Rock.

3:55 P.M.—"Student Health Service at the University of Arkansas," Fount Richardson, Fayetteville.

4:15 P.M.—"The Rhinoplastic Operation," Samuel Fomon, Director, Plastic Surgery, Manhattan General Hospital, New York.

Friday Evening, Hotel Marion

7:00 P.M.—Social Hour—Pulaski County Medical Society, hosts.

8:00 P.M.—Buffet dinner—Dancing.

(Tickets for dinner must be obtained at registration desk not later than noon, Friday, April 18th.)

FINAL SESSION

Saturday Morning, April 19th, 9:00 A. M.

Presiding, H. King Wade, President.

9:00 A.M.—"Old Folks," R. B. Robins, Camden.

9:20 A.M.—"New Drugs in the Treatment of Malaria," H. Packer, Associate Professor, Division of Preventive Medicine, University of Tennessee College of Medicine, Memphis.

10:00 A.M.—"Present-Day Treatment of Diabetes," Alexander Marble, Instructor in Medicine, Harvard Medical School, Boston.

10:40 A.M.—"The Psychological Moment in the Treatment of Tuberculosis," J. D. Riley, State Sanatorium.

11:00 A.M.—"The Surgical Aspects of Cancer," Warfield M. Firor, Associate Professor of Surgery, Johns Hopkins School of Medicine, Baltimore.

FINAL SESSION HOUSE OF DELEGATES

Saturday Afternoon, April 19th, 2:00 P. M.

Robinson Auditorium

Presiding, H. King Wade

Roll Call

Report of the Nominating Committee

Election of Officers:

President-Elect

First Vice-President

Second Vice-President

Third Vice-President

Treasurer

Secretary

Councilors from the First, Third, Fifth, Seventh and Ninth Districts

Delegate to the American Medical Association

Alternate to the American Medical Association

Report of the Reference Committee

Report of Committees

New Business

Adjournment

GENERAL SESSION

Saturday Afternoon, April 19th

(Immediately following adjournment of the House of Delegates.)

Presiding, H. King Wade

Presentation of President L. T. Evans

Presentation of the President-Elect

New Business

Selection of the Place of Next Meeting

Adjournment Sine Die

Council Meeting

The new council will meet for brief reorganization meeting immediately following adjournment sine die.

**PRELIMINARY PROGRAM
TWENTY-THIRD ANNUAL SESSION
WOMAN'S AUXILIARY TO THE
ARKANSAS MEDICAL SOCIETY**

Albert Pike Hotel, Little Rock

April 17 and 18, 1947

OFFICERS

President—Mrs. Fred Hames, Pine Bluff
President-Elect—Mrs. W. J. Hunt, Warren
First Vice-President—Mrs. Loyce Hathcock, Fayetteville
Second Vice-President—Mrs. S. A. Thompson, Camden
Third Vice-President—Mrs. C. E. Dungan, Augusta
Fourth Vice-President—Mrs. Chas. T. Chamberlain, Fort Smith

Secretary—Mrs. Robert Dickins, Pine Bluff
Treasurer—Mrs. V. T. Webb, Little Rock
Publicity Secretary—Mrs. Lamar McMillin, Little Rock
Historian—Mrs. C. W. Garrison, Little Rock
Parliamentarian—Mrs. William Hibbitts, Texarkana
Poet Laureate—Mrs. Geo. B. Fletcher, Hot Springs
Councilwoman to the Woman's Auxiliary to the Southern Medical Association—Mrs. L. G. Fincher, El Dorado

COUNCILORS

Mrs. C. A. Churchill, Batesville
Mrs. L. G. Fincher, El Dorado
Mrs. L. J. Kosminsky, Texarkana
Mrs. A. C. Shipp, Little Rock
Mrs. E. L. Thompson, Hot Springs

COMMITTEE CHAIRMAN

Organization—Mrs. Loyce Hathcock, Fayetteville
Education and Public Health—Mrs. S. A. Thompson, Camden
Hygiene—Mrs. C. E. Dungan, Augusta
Public Relations—Mrs. Chas. T. Chamberlain, Fort Smith
Physical Health Examinations—Mrs. E. D. McKnight, Brinkley
Memorial and Chaplain—Mrs. C. E. Kitchens, DeQueen
Ilse F. Oates Student Loan Fund—Mrs. C. E. Oates, North Little Rock
Doctor's Day—Mrs. W. G. Hodges, Malvern
Archives—Mrs. J. R. Runyan, Little Rock
Essay Contest—Mrs. W. A. Snodgrass, Jr., Little Rock
Constitution and By-Laws—Mrs. C. A. Churchill, Batesville
Cancer Control—Mrs. W. R. Brooksher, Fort Smith
Biography—Mrs. C. W. Dixon, Gould
Jane Todd Crawford Memorial—Mrs. W. E. Reed, Hot Springs
Finance—Mrs. B. A. Rhinehart, Little Rock
Legislation—Mrs. Chas. R. Henry, Little Rock
Erle Chambers Memorial Library Fund—Mrs. Louis K. Hundley, Pine Bluff

ADVISORY BOARD

Dr. L. K. Hundley, Chairman, Pine Bluff
Dr. H. Fay H. Jones, Little Rock
Dr. A. C. Shipp, Little Rock
Dr. H. T. Smith, McGehee
Dr. G. C. Coffey, Hot Springs
Dr. D. C. Lee, Hot Springs
Dr. J. F. Jackson, Newport

SPECIAL COMMITTEES—LOCAL

General Chairman—Mrs. C. F. Shukers
Entertainment—Mrs. Harvey Shipp
Registration—Mrs. J. B. Crawford, Mrs. K. W. Cosgrove, Mrs. C. M. Brooks, Mrs. Howard M. Armstrong
Flowers—Mrs. R. M. Eubanks, Mrs. F. Walter Carruthers
Tickets—Mrs. Phillip T. Cullen, Mrs. Daniel Autry, Mrs. J. R. Warden
Publicity—Mrs. Lamar McMillin
Courtesy—Mrs. J. K. Donaldson, Mrs. Erner Jones

Hotel Reservations—Mrs. Robert F. Thompson
Transportation—Mrs. Robert D. Jones, Mrs. Gordon Oates
HONOR GUESTS

Mrs. Jesse D. Hamer, President, Woman's Auxiliary to the American Medical Association, Phoenix, Arizona
Mrs. Wiley R. Buffington, President, Woman's Auxiliary to the Southern Medical Association, New Orleans

PROGRAM

Thursday, April 17, 1947

Mezzanine Floor, Albert Pike Hotel

9:00 A.M.—Registration
11:00 A.M.—Executive Board Meeting—Parlor
12:00 Noon—Executive Board Luncheon

Mirror Room—Price \$1.40

Invocation—Mrs. C. E. Kitchens, DeQueen

GENERAL SESSION

Parlors A, B, C, Mezzanine Floor

Albert Pike Hotel

2:00 P.M.—Opening of Session—Mrs. Mason G. Lawson, President, Woman's Auxiliary to the Arkansas Medical Society

Invocation—Mrs. Erner Jones, Little Rock

Address of Welcome—Mrs. W. C. Langston, Little Rock

Introduction of the State President—Mrs. Fred Hames, Pine Bluff

Response to the Address of Welcome—Mrs. E. L. Thompson, Hot Springs

Reports of Officers

Reports of State Chairmen

Introduction of Honor Guest—Mrs. Wiley R. Buffington, President, Woman's Auxiliary to the Southern Medical Association, New Orleans

Report of the Meeting of the Woman's Auxiliary to the American Medical Association—Mrs. L. J. Kosminsky, Texarkana

Report of the Meeting of the Woman's Auxiliary to the Southern Medical Association—Mrs. L. G. Fincher, El Dorado

Announcement of Special Committees—Mrs. Mason G. Lawson, Little Rock

Report of the Registration Committee—Mrs. J. B. Crawford, Little Rock

Report of the Entertainment Committee—Mrs. Harvey Shipp, Little Rock

PUBLIC MEETING

Robinson Auditorium

8:00 P. M.

Invocation—Rev. R. D. Adams, First Presbyterian Church, Little Rock

Welcome Address—R. E. McLochlin, President, Pulaski County Medical Society, Little Rock

Introduction of H. King Wade, President, Arkansas Medical Society, Hot Springs National Park

"Some Problems in the Economics of Medical Care," H. H. Shoulders, President, American Medical Association, Nashville, Tennessee

Benediction—Rev. R. D. Adams, First Presbyterian Church, Little Rock

GENERAL SESSION

Friday Morning, April 18, 1947

Parlors A, B, C, Mezzanine Floor

Albert Pike Hotel

8:30 A.M.—Past-President's Breakfast—Mirror Room

9:30 A.M.—Calling the Meeting to Order—Mrs. Fred Hames, President, Pine Bluff

Invocation—Mrs. A. F. Gray, Little Rock

Reading of the Minutes

Address—Dr. H. King Wade, President, Arkansas Medical Society, Hot Springs
 Reports of County Auxiliaries
 Introduction of Honor Guest—Mrs. Jesse D. Hamer, President, Woman's Auxiliary to the American Medical Association, Phoenix, Arizona
 Report of the Registration and Credentials Committee—Mrs. J. B. Crawford
 Greetings from the Woman's Auxiliary to the Southern Medical Association—Mrs. Wiley R. Buffington, President, Woman's Auxiliary to the Southern Medical Association, New Orleans
 Election of Officers
 Announcement of the Entertainment Committee—Mrs. Harvey Shipp, Little Rock

MEMORIAL SESSION

Joint Session with the Arkansas Medical Society
 Robinson Auditorium — 11:40 A. M.

Presiding—H. King Wade, President, Arkansas Medical Society
 Invocation—Rev. E. W. Callies, Grace Lutheran Church, Little Rock
 Vocal Solo—"Turn Unto Me" (Dvorak)—Mrs. C. H. Killian, Mrs. Conrad Farrell, accompanist
 Memorial Address—W. H. Mock, Chairman, Committee on Necrology, Arkansas Medical Society, Prairie Grove
 Vocal Solo—"The Twenty-Third Psalm" (Mallotte)—Mrs. C. H. Killian, Mrs. Conrad Farrell, accompanist
 Benediction—Rev. E. W. Callies, Grace Lutheran Church, Little Rock

IN MEMORIAM

Mrs. O. L. Bone, Newark
 Mrs. J. L. Rushing, Chidester
 Mrs. H. F. Thompson, Bearden
 Mrs. Minnie U. Fuller, Magazine

LUNCHEON

1:00 P. M.

Little Rock Country Club
 Price \$2.00

Toastmistress—Mrs. Mason G. Lawson, President, Woman's Auxiliary to the Pulaski County Medical Society
 Invocation—Mrs. Alvin Longstreth, Little Rock
 Introduction of Past Presidents
 Introduction of State Officers
 Introduction of the Wives of Officers of the Arkansas Medical Society
 Address—Mrs. Jesse D. Hamer, President, Woman's Auxiliary to the American Medical Association, Phoenix, Arizona
 Poem—Mrs. Geo. B. Fletcher, Hot Springs
 Unfinished Business
 Report of the Committee on Courtesy Resolutions
 Installation of Officers
 Presentation of Gavel—Mrs. Fred Hames
 Address of Incoming President—Mrs. W. J. Hunt, Warren

4:00 P. M.

Post-Convention Board Meeting—Mrs. W. J. Hunt, Presiding

Friday, April 18, 1947
 Hotel Marion

7:00 P.M.—Social Hour—Pulaski County Medical Society, hosts

8:00 P.M.—Buffet Dinner—Ball Room—Dancing

Dinner tickets must be purchased at registration desk (Robinson Auditorium) prior to noon, Friday, April 18th.

WOMEN'S AUXILIARY NEWS

Mrs. Hardy H. Smith was elected president of the Sebastain County Medical Society Auxiliary March 10th at the March luncheon meeting. She will succeed Mrs. Fred H. Krock, who automatically will become vice president.

Other officers named were Mrs. W. L. Shippey, secretary; Mrs. B. L. Ware, treasurer. They will be installed in May.

Delegates and alternates to the state convention, April 17-19, in Little Rock, were elected as follows: Delegates, Mrs. Walter G. Eberle, Mrs. D. W. Goldstein; and alternates, Mrs. J. S. Southard, Mrs. C. T. Chamberlain.

The society voted to entertain the medical society at its May party, which will be held at Dr. and Mrs. A. F. Hoge's farm north of Van Buren. The April meeting of the Auxiliary has been canceled in favor of the state convention.

Mrs. Eberle and Mrs. S. P. Stubbs were hostesses for the Monday party. Mrs. Krock conducted the business meeting.

Others present were Mrs. Goldstein, Mrs. Hogue, Mrs. Shippey, Mrs. Smith, Mrs. Stanley Gates, Mrs. Jim Johnson, Mrs. E. C. Moulton, Mrs. Morris Henry, Mrs. Kenneth Thompson, Mrs. M. E. Foster and Mrs. W. F. Rose. Mrs. Wright Hawkins was a guest.

Mrs. W. F. Rose, Publicity Chairman, Sebastian County Medical Society Auxiliary.

A few more months and the members of the Woman's Auxiliary to the American Medical Association will be arriving in Atlantic City, New Jersey, for their annual convention—June 9-13.

Have you made your reservations? If not, send your request at once to Dr. Robert A. Bradley, Chairman, Subcommittee on Hotels, 16 Central Pier, Atlantic City, New Jersey.

The Women's Medical Auxiliary met February 20, 1947, at the Garrett Hotel with the following hostesses for the meeting: Mrs. Jack M. Shepppard, Mrs. J. H. Pinson, Jr., Mrs. H. F. Thibault, and Mrs. Amanda Shepppard. A three-course luncheon was served to the 13 members present.

Business meeting followed. A report of the basket of food and clothing to a needy family with illness in the home, was given by the chairman of the committee, Mrs. G. D. Murphy, Sr. A motion was passed that \$10 be given to the



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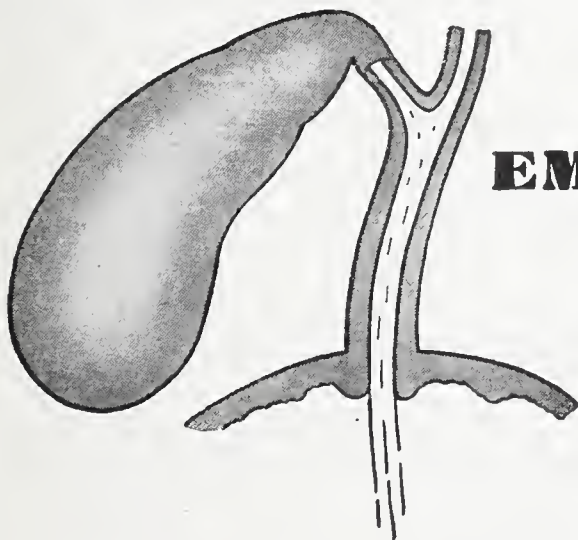
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ELKHART, INDIANA

Ilse F. Oats Student Loan Fund, and \$5 to the Erle Chambers Library Fund. A report was given by the secretary. All routine business was discussed and meeting was adjourned.

Mrs. Jack M. Sheppard,
Corresponding Secretary.

RESOLUTION

The members of the Ouachita County Medical Society always enjoy and profit by the close association we have with one another and it is with great reluctance that we give up one of our esteemed members. On 24th of November, 1946, Dr. Samuel A. Thompson by an act of the All-Powerful Providence was taken from us.

For many years Dr. Thompson worked with great foresight and energy in the medical profession of Arkansas and by his skill, knowledge of medicine and his earnest desire to serve in his profession he made invaluable contributions to the Ouachita County Medical Society, to the Arkansas Medical Society and to the alleviation of pain and suffering of untold numbers of men, women and children in the community where he served so well.

Both the Ouachita County Medical Society and

the State Medical Society recognized the ability and qualities of leadership of Dr. Thompson in electing him President of the Ouachita County Society and a Counselor of the State Society.

Be it therefore resolved that the Ouachita County Medical Society by these resolutions express our sincere respect for Dr. Thompson as a man and as a brother of our profession, and our great sense of loss at his passing.

Be it further resolved that a copy of these resolutions be forwarded to members of his family and to the Arkansas Medical Journal.

BOOK REVIEW

Synopsis of Pathology. By W. A. D. Anderson, M. D., Professor of Pathology and Bacteriology, Marquette University School of Medicine. Pp. 741, 327 text illustrations, 15 color plates. Price \$6.50. Saint Louis: C. V. Mosby Company, 1946.

This is a rather extensive synopsis, excellently arranged and will prove useful to students and to clinical practitioners.

The Management of Fractures, Dislocations and Sprains. By John Albert Key, M. D., and Earle H. Conwell, M. D. Fourth edition. Pp. 1,322. Price \$12.50. Saint Louis: C. V. Mosby Company, 1946.

This classic volume appears in its fourth revised edition, continuing to hold preeminent place in its particular field.

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CHAS. T. CHAMBERLAIN, M. D.,
F. A. C. P.
Internal Medicine and Cardiology

H. C. DORSEY, M. D.
Internal Medicine

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THE PITUITARY-OVARIAN RELATIONSHIP *

JOE H. SANDERLIN, M. D., Little Rock,
and WM. B. HARRELL, M. D., Texarkana

The gynecologist today is equipped with an armamentarium of endocrine preparations (hormones) that can be used very advantageously if used in the proper manner. For this reason we feel that a review of the relationship that exists between the pituitary gland and the ovary is appropriate.

Our present knowledge of the pituitary gland leads us to believe that it not only controls the process of reproduction but also influences the ovary to the extent of regulating the menstrual cycle. In this relationship we find the ovary dependent upon the anterior pituitary for the stimulus to excite its secretions. In turn these secretions act in an inhibitory manner upon the anterior pituitary and directly controls the output of its hormones both quantitatively and qualitatively.¹

It has been shown that the anterior pituitary secretes the following gonadotropic hormones which influence the ovary:

- (1) Follicle stimulating hormone.
- (2) Luteinizing hormone.

Both of these hormones are products of the basophilic cells of the anterior pituitary.

Recently Astwood has suggested that a third gonadotropic substance, the luteotropic hormone, is secreted by the anterior pituitary gland.² This hormone supposedly maintains the corpus luteum. Many workers feel that the lactogenic hormone is luteotropic and by administering prolactin bleeding may be controlled by stimulating the corpus luteum to longer action.

The ovary then under gonadotropic stimulus secretes the following hormones:

- (1) Estrogenic hormone (theelin) which is a product of the granulosa cells.

- (2) Luteinizing hormone (progesterone) which is a product of the lutein cells of the corpus luteum.

The growth and development of the reproductive organs of the female arriving at the puberty is definitely under the influence of the hormones from the anterior pituitary gland and ovary. These hormones are also responsible for the development of the secondary sex characteristics both physical and psychic. There is some doubt at present as to whether the ovaries exhibit any endocrine function before puberty. Some workers feel that the development of the breasts at about the age of 8 years is a prepuberal sign of active ovarian function.³ Estrogenic substances have been demonstrated in the blood and urine at this time. The beginning of menstruation, however, is the most demonstrable sign of ovarian function. In the United States we find the onset of the first menstrual period to be usually between the ages of 12 and 14 years. In certain extreme climates the age for the menarche ranges between 9 and 16 years. If menstruation begins before the age of 9 years, we consider it precocious, and if menstruation is delayed beyond the 16th year it is spoken of as primary amenorrhea.

The experimental work of Frank has indicated to us that estrogen in small doses will stimulate the pituitary gonadotropic function while larger doses will inhibit it.⁴ It is possible then, that the partially developed ovarian follicles in the adolescent stimulates the production of the gonadotropic hormones and then as the amount of estrogen increases, an inhibitory action occurs which in turn causes a decrease in the production of the anterior pituitary gonadotropic hormones. This process of hormonal stimulation and inhibition in all probability initiates and controls the menstrual phenomena and our present concept of the mechanism is as follows:

Pituitary A. (Follicle stimulating hormone) ripens the ovarian follicle and incites the granulosa cells to produce estrogen which is responsible for the growth phase of the endometrium. After the full development of the follicle we have the

* Read before the Seventieth Annual Session, Arkansas Medical Society, Little Rock, April 16, 1946.

rupture and extrusion of the ovum, or in other words the ovulatory process.

The corpus luteum is developed from the ruptured graffian follicle.

Pituitary B. (lutinizing hormone) luteinizes the granulosa cells of the ruptured follicle and incites them to produce progesterone which is responsible for the secretory phase and which in conjunction with estrogen accounts for the premenstrual or progestational phase of the endometrium.

As the amount of estrogen increases throughout the cycle and reaches its highest peak just before menstruation, we find a corresponding decrease in the secretion of pituitary A and B.

When the level of the gonadotropic hormones becomes insufficient to maintain the corpus luteum it undergoes retrogression and this results in a stoppage of the estrogen production.

The sudden withdrawal of the estrogen and progesterone causes the built-up endometrium to break down resulting in a flow of blood and debris which we call menstruation.

With the decrease of estrogen in the blood the inhibiting effect on the anterior pituitary is removed allowing the basophilic cells to produce the gonadotropic hormone again. This stimulates a new follicle to develop and initiates a new cycle.

In the event of pregnancy the suppression of the anterior pituitary hormones persists and the cycle activity is held in abeyance throughout the gestational phase.

For the normal cycling of the menses to take place under hormonal control we must assume that there is no disturbance in the function of the anterior lobe of the pituitary. Also it is necessary for the ovary (end-organ) to respond in a normal manner to the hormonal stimulus from the anterior pituitary. At puberty we can explain a few abnormal menstrual cycles in the maturing female because experimental work has shown that the ovary as an end organ becomes more responsive with age.⁵ Some of the components of the ovary tend to be irresponsive to the first few stimuli of the gonadotropins but later the gland shows more responsiveness.

Functional uterine bleeding then might well develop at adolescence and at the menopause. Any therapy aimed at this functional disturbance would then be directed toward a dysfunction of the anterior pituitary or of the ovary.

With the aid of vaginal smears, endometrial biopsies and various methods of hormonal determinations we are now able to get definite information as to whether the anterior pituitary or the ovary is at fault. With this information in hand we should be in a better position to administer organotherapy.

It is well to remember that large doses of the estrogenic hormone will inhibit the secretion of the anterior pituitary gonadotropic hormones or cause anterior pituitary impotence.

Unquestionably it would be better to make a careful endocrine study on each patient exhibiting symptoms of ovarian dysfunction before instituting treatment. We are aware, however, that facilities for the study of these cases are not available to all and it is therefore necessary that many cases be handled by the **therapeutic test method**. Those individuals who fail to respond to treatment within a reasonable period of time, however, should have the benefit of a complete endocrine study.

A typical case illustration is as follows:

R. L. Single, white, female (virgin), age 20 years. History of bleeding at irregular intervals varying from 2 months to 6 months since onset of menstruation at the age of 15 years.

Vaginal smear—showed oval-shaped cells, irregular in size and large, deep staining nuclei (estrogen deficient smear). Endometrial biopsy showed atrophic or hypoestrogenic endometrium.

Hormonal determination (blood) for gonadotropins revealed a lack of anterior pituitary gonadotropic hormones expressed in rat units per liter.

Diagnosis: Functional amenorrhea due to ovarian deficiency secondary to hypofunction of the anterior pituitary gland.

Treatment: Priming doses of Diethylstilbesterol orally administered daily for seven days followed by injections of anterior pituitary gonadotropins with good results.

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RHEUMATIC FEVER IN CHILDHOOD *

SAM PHILLIPS, M. D.

Little Rock

Rheumatic fever is essentially a childhood disease. The highest incidence of onset is found between five and nine years of age. In the child the disease presents its most typical symptoms as well as its greatest variety of manifestations.

The cause of rheumatic infection is still unknown. A close relationship to hemolytic streptococcal upper respiratory infection has been demonstrated both in regard to the primary infection as well as to reactivations or exacerbations of the disease. However, similar upper respiratory infections occurring in other children have not been followed by the development of rheumatic infection. Likewise, reactivations of the rheumatic infection have been found to occur in many instances without additional hemolytic streptococcal infections.

Some of the predisposing causes are of interest and importance. The climate is a definite factor, the disease being most prevalent in the temperate zone. A familial tendency or predisposition to the disease has been recognized for a long time and seems to follow definite laws of heredity. The incidence of the disease is much higher in children of rheumatic families than in non-rheumatic. The present view of the pathogenesis of rheumatic infection may be expressed as follows: Some individuals conditioned by heredity and environment respond in a particular manner to hemolytic streptococcal infections and their reaction produces the clinical and pathological picture rather than a specific etiological organism. Rheumatic infection is a systemic disease of marked chronicity resembling pathologically and clinically both tuberculosis and syphilis. The pathology of rheumatic infection has undergone an interesting evolution. Formerly, our attention was focused upon the vegetations of the heart valves and the changes in the pericardium; not until recently have we discovered and fully appreciated the involvement of the myocardium. Pathological changes in the myocardium occur early in the disease but are often subclinical.

The onset of rheumatic infection in childhood is usually rather insidious, often difficult to diag-

nose, and frequently occurs unrecognized. The disease seems to remain in its systemic phase for a relatively long time, with minimal local tissue manifestations. During this phase of the disease, however, the child presents a rather definite and striking clinical picture. We may briefly enumerate the symptoms and signs presenting themselves in a case of rheumatic infection as follows:

1. Fatigue, always a serious symptom in a child and resulting from the toxemia present.
2. Irritability is usually present, also a result of the toxic effect of the infection.
3. Anorexia, together with loss of weight or failure to gain.
4. A distinctive pallor of the face together with cold and clammy hands and feet. This pallor does not reflect a state of anemia but rather a vasomotor instability.
5. Night sweats are common and parallel the severity of the infection.
6. Nosebleed, spontaneous in character, not requiring any degree of trauma, is frequently met with.
7. Elevation of the pulse rate or an abnormal increase in the rate in response to fever or exercise.
8. Low grade fever, with the increase in temperature usually occurring in the afternoon.
9. A variety of vague pains referred to the extremities, joints and the abdomen.

Many of these symptoms and signs are due to the toxemia produced by the infection and differ therefore in no way from toxic states due to tuberculosis, undulant fever, leukemia, or acute and chronic focal infections. Others, such as epistaxis the changes in the pulse rate and growing pains, give evidence of minimal rheumatic localizations with definite rheumatic pathological processes.

The diagnosis of rheumatic infection in its systemic phase is often rather difficult. It may require some time to prove or disprove its correctness. With the aid of the sedimentation rate we may exclude acute infections. If our case is found to have increased sedimentation rate on repeated examinations, we are dealing with a chronic disease. Tuberculin tests together with chest studies would differentiate this disease. Blood studies such as agglutination tests, and morphological studies would help to eliminate undulant fever, blood dyscrasias and other chronic infections.

The history of rheumatic infection in the family,

* Read before the Ouachita County Medical Society, Camden, Arkansas, November 7, 1946.

the presence of the above symptoms, and the chronic nature of the disease, make it possible to establish a tentative diagnosis of early rheumatic infection. The subsequent course of the disease, together with the appearance of major manifestations, will definitely establish the diagnosis.

The major manifestations of rheumatic infection, such as carditis, with valvular heart disease, polyarthritides, Sydenham's chorea, subcutaneous nodules and skin lesions, are well defined. We have evidence to believe that localizations occur in almost any organ. Rheumatic pneumonia, a rather rare localization, has been definitely established by pathological studies. Enlargement of the liver is often seen in children during the active phase of the disease and precedes cardiac failure. This suggests that the enlargement is not due entirely to passive congestion but rather to direct involvement of the liver by the rheumatic process. The course, the damage to the heart, and ultimate outcome of the disease seem to be directly related to the severity, duration and recurrency of the systemic infection.

Treatment of rheumatic fever during the active stage consists mainly of bed rest, attention to nutrition and relief of symptoms. 1. Rest and relaxation are necessary to reduce metabolic expenditure and to promote the development of the natural defense mechanism. Merely keeping the child in bed, often under duress, is not conducive to rest and relaxation. The child as well as the family should be informed of what we are trying to accomplish, the program well explained and accepted both by the patient and those who are to attend and care for the child.

2. A general diet, moderately low in carbohydrate, with the addition of vitamin D in the form of cod liver oil will suffice. Of late a great number of vitamins have been suggested, but I think we can truthfully say that a well-balanced diet has proved quite satisfactory.

3. Salicylates in some form are most commonly used. They have a very beneficial effect on fever, muscle and joint pains and seem to have a direct action on the exudative phase of the pathological process. No specific action, however, can be ascribed to this drug. It should be given in large doses to be effective, often as much as 50 to 100 grains daily. Salicylate poisoning must, however, always be kept in mind.

4. Chemotherapy with the sulfonamides has given universally disappointing results and is dis-

tinctly contraindicated during the active stage of the disease.

5. Penicillin, that cure-all, is of no value in this disease.

6. There are no known vaccines or serums which are of any value in this disease.

Too great emphasis cannot be made on the fact that in rheumatic heart disease in childhood, heart failure is due chiefly to the presence of active infection, a true inflammatory process of the myocardium itself and not primarily to the handicap imposed on the heart by valvular lesions or by pericardial adhesions. This is a situation distinctly different from that usually encountered in the adult where deterioration of the myocardium, valvular damage, or hypertension, is quite sufficient to exhaust the heart's reserves. For this very reason, response to treatment in the heart failure of childhood is less satisfactory.

In addition to the general measures recommended for the treatment of acute rheumatic fever, the restlessness of heart failure should be handled with sedatives as phenobarbital or opiates. Codeine is here more satisfactory than barbiturates.

Diuretics may be used. A very good and very safe diuretic is Theocalcin in dosages of 7½-15 grains three times a day. Mercurial diuretics as salyrgan and novasurol have a very powerful action and are quite dangerous and toxic to the kidneys.

And now we come to that drug extolled widely as the life saving drug of heart disease. Digitalis has given very disappointing results indeed in most rheumatic heart failure cases and many authorities feel that its administration has actually shortened the patient's life. Once again it must be emphasized that the heart failure of childhood differs essentially from the heart failure in adults. The myocardium rarely fails in childhood because of the burden placed on it by valvular lesions or pericardial adhesions. The myocardium in childhood fails because it is suffering from active invasion by the rheumatic virus. Digitalis is therefore contraindicated. The child already has a poisoned myocardium.

The most difficult part of the management is the long period of convalescence required. Tact and patience are needed to assure the patient the need of this most important phase of treatment.

DIAGNOSIS OF ACUTE ABDOMEN

G. E. CANNON, M. D.

Hope

To differentiate the acute abdomen is an important part of the abdominal surgeon's work. When we know what we are going to find in opening the abdomen, the work can be done more satisfactorily and with much more dispatch than when we are uncertain. Very few exploratory incisions should be made in this day of scientific equipment and well grounded medical education.

Because we see many more acute appendices than any other one abdominal lesion it is possibly more easily diagnosed than most other abdominal disorders, though it is too easy sometimes to say "he has appendicitis."

This patient comes with the history of severe pain in the epigastrium or around the umbilicus, accompanied usually with vomiting, elevation of temperature and blood count, rapid pulse and a rigid, tender abdomen.

The pain, in three to eight hours, shifts to the region of McBurney's point. The blood count usually increases in accordance with the infection, even going up to 20,000 to 30,000 in a few hours where a rupture exists. If nature takes care of the rupture, the active condition is confined to the right abdomen; but in large ruptures and in most all cases of children the leakage has involved the whole abdomen.

With this picture before us we can readily diagnose the case and almost be safe in saying whether or not a rupture has occurred.

Acute salpingitis, where the pus is pouring out of both tubes into the abdominal cavity, may be diagnosed and operated for appendicitis and it may seem like a justifiable mistake, but with much care we can almost always avoid this error. If the error is made, the care and after results in such cases does not differ much in treatment and results which we find from the appendix cases. The pain in acute salpingitis is more constant, more bilateral and not so high and sepsis is not so marked. A positive gonococci slide, from the vagina, should aid the diagnosis. A pelvic examination shows much tenderness of the pelvis on pressure in the acute stage and a fixed pelvis in the old cases. There is seldom vomiting or digestive disturbances in salpingitis.

The twisted pedicle of an ovarian cyst produces great pain, some nausea and vomiting and tenderness on the affected side. The pain is con-

stant, not paroxysmal, but no fever or elevation of blood count is noticeable for several hours.

The cyst, if large, may be felt through the abdominal wall. If a vaginal examination can be made a tender mass can be felt on the affected side. This can be differentiated from extra-uterine pregnancy because this pain is constant, while in extra-uterine pregnancy it is more paroxysmal. Sepsis comes up in this and does not in the unruptured extra-uterine pregnancy. In this we seldom have uterine hemorrhage. Sometimes we see these cases on the third or fourth day, when sepsis is marked, temperature high, constant severe pain and blood count high. Then a diagnosis is easy.

Ruptured extra-uterine pregnancy is an interesting subject and error in diagnosis should seldom be made if a careful history and definite symptoms are recorded. Usually a period has been skipped for a week or ten days. Paroxysmal pains come on with a mild uterine hemorrhage beginning and stopping, but the hemorrhage is never excessive.

This may be considered an abortion, but no membranes pass and the volume of hemorrhage is not as great as in an abortion. With these symptoms present and a careful examination made a mass can be detected in the tube before a rupture, but seldom will a patient consent to an operation before rupture occurs. When rupture occurs, about the sixth or seventh week, there is shock, possibly fainting, palor and great pain. In a short while the white count goes to 14,000 to 18,000 and frequently a peculiar pain occurs under the shoulder of the affected side.

If the internal hemorrhage is excessive it will increase the pulse rate and show the patient is in a serious condition. With considerable hemorrhage the fluctuating mass may be detected in the pelvis. Sometimes the hemorrhage is so small that it may be absorbed and the patient get well without operation.

One case was sent into the hospital on the eleventh day after rupture with a temperature above 102 degrees, high blood count and instructions were sent to operate for an abscess of the ovary. The fluid in the right pelvis pushed out the vagina at the vulva. An aspirating needle was used which enabled us to reach a diagnosis of rupture. A severe hemorrhage from a ruptured corpus luteum cyst is seldom seen, but when it occurs it is impossible to differentiate from a ruptured extra-uterine pregnancy without operating. There may be similar paroxysmal pains with uterine hemorrhage in both cases.

Both are emergency operations and treatment and results are very similar.

Passage of a kidney stone probably produces more acute pain than any other abdominal lesion. The pain is usually unilateral, with no fever and seldom any vomiting. The pain begins in the loin and extends downward to the urinary bladder and even into the urethra. When the stone drops into the bladder the pain ceases and there is rarely soreness or disturbance following.

Most kidney stones are readily detected by the X-ray either in kidney, urethra or bladder. The urinalysis always shows blood and frequently pus cells also. There is possibly no lesion of the acute abdomen easier to diagnose than passage of kidney stones.

The pain caused by the passage of gall stones is hard to localize. It begins in the gall bladder region, but soon diffuses itself throughout the chest, with a deep choking pain and must be differentiated from an anginal pain, a ruptured peptic or duodenal ulcer or cholecystitis. With this excruciating pain there is vomiting, but no fever as found in acute cholecystitis. The anginal pain extends down the arm and comes in the aged and with high blood pressure. In rupture of ulcers, the pain extends into the abdomen. An earlier diagnosis may have been made in cases of ulcer. Also the pain in ulcer cases is more nearly the midline. Without a previous history there is difficulty in differentiation of ruptured ulcer or gallstone colic. Usually, within a short time the stone has passed and the pain cleared, though if the stone lodges in the duct the pain continues without peritonitis symptoms, which soon occur in ulcer rupture. In acute cholecystitis there is not so much pain, but tenderness over the gall bladder region, accompanied by fever and elevated blood count.

The passage of a gall stone or a right-sided kidney stone have some similarity, but a knowledge of the anatomy and the transmission of the pain easily clears this point. A check of the urine also may be made.

If the stone lodges in the duct, jaundice follows, but no fever is found as in acute cholecystitis. With gall bladder dye and X-ray used after the method of Graham, we have the best diagnostic aid in all gall bladder lesions, though stones are not always visualized because of their soft consistency. The surgeon who fails to use the X-ray in these cases has discounted his best friend.

Ruptured duodenal or peptic ulcer is a grave

lesion and requires prompt diagnosis and treatment to give the patient the best chance. In most of these cases, a diagnosis of ulcer already has been made. A severe pain occurring in the stomach or gall bladder region with a diffusion of the pain throughout the abdomen makes us feel sure we have a ruptured ulcer. The pain will hardly cease under heavy doses of morphine. The two things most likely to be confused with an ulcer rupture are acute gall bladder pain and acute pancreatitis. A ruptured gall bladder can hardly be differentiated except from past history. The pain is in the same region and characteristics are similar. It has been said that when a pain in the abdomen requires a half grain or more of morphine for relief it is a case for emergency operation. A ruptured ulcer, gall bladder or pancreas come under this classification.

We will not discuss stomach hemorrhage, pyloric obstruction, ruptured aneurism of the abdominal aorta, diaphragmatic hernia, or acute pancreatitis, or acute kidney hemorrhage. A wonderful discussion of acute pancreatitis was recently presented by Irvin Abell, which every diagnostician should read.

Lastly, but by no means least, is our study of bowel obstruction. This has been, possibly always, and probably always will be, showing the greatest percentage of mortality of any correctable abdominal lesions. We watch these cases progress too long many times, thinking our palliative treatment may yet relieve the condition, when an early operation would give ready relief and early convalescence. How often a few hours procrastination kills our patient and how often a large dose of morphine will relieve the patient of pain, but when the patient awakens and we awake to the situation, the patient has several inches of unrepairable gangrenous gut and an early death.

No part of the abdominal cavity is exempt from obstruction, but around McBurney's point probably sixty percent of this type lesion is found. One cause of this is post-operative obstructions, often intussusception, especially in the child, when the caecum swallows the illium. The causes of the obstruction are many and varied. Tumors in any area, but especially in the sigmoid region, are frequent, especially in the aged.

Intussusception, especially in the small child, most often at the ileocecal junction, is serious and fatal unless relieved early. Adhesions and bands of adhesions cause much obstruction in

any old operative field, but most often around some drain area. Foreign bodies of various types in the gut, worms and fecal impaction give rise to serious consequences. Twice within a year we operated the same patient for obstruction caused by the total blocking of the small gut by a dry mass similar to an old, burned Irish potato. Hernias are frequently causes of bowel obstruction and everyone knows the disastrous consequences if not relieved early. The diagnosis of bowel obstruction has been made easier in recent years by the X-ray. Ocsner, of New Orleans, has probably stressed this more than any other man by his persistent teaching of how the X-ray shows the fluid levels. Everyone knows that a flat X-ray plate, made with the patient standing, will show the fluid levels more numerous in the obstructed area, but we sometimes forget. This is our best diagnostic aid. Severe pain, that is only temporarily relieved, without fever, elevation of pulse and at first a flat abdomen, very little elevation of blood count and if the lesion is low down, maybe no vomiting, must be suspected to be a case of bowel obstruction, especially when bowels do not move.

A good bowel movement may be had from below an obstruction. It may mislead the patient, because of some relief, and the doctor because of the quantity of gas and fecal matter passed. Do not be too much encouraged by this. Try a little liquid food by stomach and if relief from obstruction has not been secured the food will soon be expelled by vomiting. Possibly no other lesion produces such constant vomiting as does bowel obstruction, especially where the obstruction is not too low down. The three main symptoms are severe pain, continuous vomiting and lack of bowel movement. Later on, of course, the blood count climbs and the abdomen becomes distended. Sometimes a mass can be detected, but at this stage the patient has a poor chance for recovery. The acute appendix case does not have so much pain and so much constant vomiting, with a septic condition showing early.

There is nothing that looks so hopeless as to open an abdomen and see nothing but gangrenous intestines. Early exercise of common sense and early use of the X-ray will help us clear up these cases in time to save us many, many sad regrets.

Case Reports

Under acute appendicitis, this case report is made because of its interest.

One day following the second caesarian section on this case the patient had a very severe pain in the right abdomen. The temperature, on the second day, climbed to 104. She was very sick. It was hard to understand because her recovery after the first caesarian was rapid, and this one seemed no different from the first.

She had a general peritonitis. Finally the wound ruptured and pus discharged for many days. Finally it cleared up and the abdomen was again closed and the patient made a good recovery.

One week after she went home, she developed a bowel obstruction. After a rather long wait, which is often the case with a bowel obstruction, she was reoperated. The obstruction was at the lower end of the ilium, and there was a partial remains of an old sloughed appendix. The remaining part of the appendix was removed, the obstruction was relieved, and the patient made a rapid recovery again.

At this operation, it was plain to see what had happened. The family then gave a history of a severe acute pain in the appendix region, two weeks before the caesarian was done. This history was not obtained until after the operation for bowel obstruction.

What really happened in this case was a ruptured appendix the day following the second caesarian, and had the pus not been able to break through the incision made for the caesarian operation, the patient would have had a VERY poor chance for recovery.

This was an unusual case of acute abdomen and never would have been diagnosed had it not been necessary to go back into the abdomen for bowel obstruction.

Another thing of interest that might be mentioned in this case, about eighteen months to two years later, she had a large ovarian cyst develop on the same side. In its removal, it was necessary to remove six or eight inches of the bowel. She recovered rapidly from this and is now a perfectly well woman.

She underwent four very serious operations in a very short time, all emergency cases, none of which might have occurred had she not had to have a caesarian operation.

We mention this last just to stress the point of what may follow any caesarian operation.

When this operation for bowel obstruction was made, the scar in the uterus from the second

caesarian showed a perfect scar, with practically no adhesions anywhere. This clears up the idea that the terrible infection following had any connection with the caesarian operation.

This case of strangulated ovarian cyst was seen with interest on the fourth day. A consultation, called at two o'clock in the morning, fifteen miles away from the hospital, was made. The patient had had a severe pain in the left abdomen for the whole time. She had taken seven compound cathartic pills to remove the pain.

On examination, she was found with a temperature of 102.5, a rather distended abdomen and a distinct mass in the left pelvis. This mass seemed to be as large as a cocoanut. She presented all the symptoms of a strangulated ovarian cyst.

As soon as she could be brought to the hospital and operated on it was done. There was an ovarian cyst that was almost gangrenous. The pedicle was so rotten that it could hardly be tied off. The cyst was as large as an extra large cocoanut. There was a lot of fluid in the abdomen and a rather septic condition, but after the removal, the patient made an uneventful recovery.

This was a case rather easily diagnosed. Relieving the pain with the seven compound cathartic pills was out of the question. The effect of the pills and the delay gave the patient a poor chance, but we often hear people say that they do not want surgery done until the last chance, which, though it satisfies the family, is bad for the surgeon and the patient.

It might be of benefit to report here an interesting case of ruptured stomach which was treated by the same doctor who treated case number two, which is also reported here.

It is always peculiar to think about how some doctors as well as laymen call a doctor around midnight. Then when they have to go to the hospital, wait until up into the night to do it. If they could just think, they could always get better service in the daytime.

This consultation was at 2 o'clock in the morning. The patient, a man about 36 years of age, a barber, and a very careful man ordinarily, developed a very severe pain about 10 o'clock in the morning, before this consultation. He had an excruciating pain which was never really relieved.

Upon examination, we found a rather dis-

tended abdomen, soreness and pain all over and some vomiting. This pain began in the epigastrium. It occurred while he was sitting in his shop. The doctor was called and he was watched until 2 o'clock the next morning, at which time the consultation was held.

After the diagnosis of a ruptured gastric ulcer was made, we ordered him to the hospital as quickly as could be. But it was 9 a.m. the next day before he reached the hospital. He was operated on about 10 a.m., or twenty-four hours after the rupture occurred.

When the abdomen was opened, food and fluid were found, and when aspirated about one pint of this foul stuff was removed. There were grey deposits any number of places in the abdomen.

The first thing done, however, was to close the rent in the stomach by a closing suture, and a whip-over of the omentum to cover the wound. After all this contents of the stomach that had been poured out was aspirated and mopped out, a drain was inserted for two or three days, and then the abdomen closed.

At first it looked like it would be impossible for him to get well; but nature does some wonderful things, and in a few days he was well on the way to recovery.

He was then placed on an ulcer diet which he carried out very strictly for a long time. He has been watched pretty closely since then and has always been in fine shape. No one ever appreciated the results following an operation more than he did.

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"DIFFUSE VASCULAR DISEASES"
PART II

Disseminated Lupus Erythematosus

In spite of some clinical similarities, disseminated lupus erythematosus can be distinguished clinically and pathologically from rheumatic fever and other diffuse vascular diseases. Disseminated lupus erythematosus is a prolonged febrile disease, sometimes, but not always, characterized by articular pain and erythema. The erythema when present usually appears first on the most exposed parts, the bridge of the nose, malar eminences, the superciliary ridges, the chin, pinna and the V-shaped exposed region over the manubrium. Erythematosus macules, often showing telangiectatic capillaries or petechiae, may appear on the tips of the fingers and toes, around the nail bed and scattered on the palms and soles. In extreme cases, the erythema also appears on the parts of the body exposed to friction, the shoulders, elbows, knees and over the malleoli. Profound weakness is always present in this disease. Also characteristic are leukopenia, microscopic hematuria and shallow ulcers on the oral mucous membrane. The disease runs a prolonged course for months or years, with exacerbations and remissions which occur without obvious cause. During exacerbations, pericarditis, pleuritis and endocarditis may occur. Although patients may recover or have partial or complete remissions lasting years, the disease is usually fatal.

Unlike other diffuse vascular diseases, disseminated lupus erythematosus is predominantly a disease of females; less than 5 per cent of the patients are males. In the absence of the rash, the clinical picture may superficially resemble that of rheumatic fever. The disease should be suspected in any young female who has prolonged fever, asthenia and arthralgia, if leukopenia, microscopic hematuria or vascular lesions in the ocular fundi are present.

The pathologic process in disseminated lupus erythematosus is essentially different from that of rheumatic fever. Fibrinoid degeneration of connective tissue is distributed much more widely throughout the body and is accompanied, as a

rule, by little tendency to cellular reaction. The fibrinoid degeneration affects the walls of small arteries, the subendothelial layer of the glomerular capillaries and the subendothelial connective tissues of the endocardium, epicardium and other serous membranes. Even the connective tissue of the mediastinum and retroperitoneum may contain regions in which the interfibrillar ground substance is increased and the collagen fibrils have become so swollen and matted together that they form eosinophilic masses of homogeneous refractive material. When the swelling involves the basement membranes of the glomerular capillaries, the glomerular loops appear discrete and rigid like stiff wire loops. When the process is more severe, the swollen collagenous masses in some loops may be necrotic and superficially resemble the embolic glomerular lesions of subacute bacterial endocarditis.

In affected small arteries, the swollen collagenous material in the media and intima may bulge into the lumen and, in association with desquamation and degeneration of the overlying endothelium, partially or completely occlude the vessel. The vascular lesions which are such a conspicuous and diagnostic part of the clinical picture in disseminated lupus erythematosus are due to these changes in the intramural connective tissue of the affected vessels.

Similar patches of fibrinoid degeneration in the subendothelial connective tissue of the epicardium are responsible for the pericarditis in disseminated lupus erythematosus, those of the pleura are responsible for pleuritis, and those of the peritoneum for perisplenitis or perihepatitis. In the subendothelial connective tissue of the cardiac valves, and of the endocardium of the auricles and ventricles, the swollen eosinophilic material may lift up the endothelium and extrude above the surface to form coarse nodular verrucae (Libman-Sacks form of endocarditis). Such verrucae, which are seen microscopically at necropsy in 40 per cent of the cases of disseminated lupus erythematosus, are unlike those of rheumatic endocarditis, both grossly and microscopically. They are usually coarse, and not limited to the line of closure of the valves. Also, unlike rheumatic fever, Aschoff bodies are not found in the myocardium. Although the verrucae on the valves and the walls of the auricles or ventricles adjacent to the valves are free of bacteria, they often have a tendency to become

secondarily infected in the last days of the disease (one-third of the cases).

In 60 per cent of the cases of disseminated lupus erythematosus, endocarditis is not visible grossly and only the microscope will reveal areas of change in the subendothelial collagen of the endocardium. Unlike rheumatic fever, murmurs and other symptoms and signs of endocardial or myocardial involvement are usually absent or inconspicuous throughout the entire course of the disease, and the electrocardiogram rarely reveals more than the low voltage seen in any prolonged wasting illness. As a further contrast to rheumatic fever, there is persistent leukopenia, unless a secondary pyogenic infection intervenes, and also, the lymph nodes are enlarged moderately throughout the body. The lymph nodes show hyperplasia and sometimes small or large areas of necrosis which have been mistaken in the past for tuberculosis. The spleen, which is usually enlarged only slightly and, as a rule, is not palpable, has a thick collar of concentrically arranged sclerotic connective tissue fibers around the central arteries.

Although the connective tissue changes of disseminated lupus erythematosus characteristically reveal themselves clinically as vascular lesions (for example, eruption on the skin, microscopic hematuria and vascular lesions of the ocular fundi), all these changes are not invariably present at any one stage of the disease. Occasionally, patients may die after a relatively short fulminating illness in a profound toxic state, and at postmortem examination very little change may be found even microscopically in the viscera.

There is no clinical evidence to support an allergic theory for this disease. It is not preceded or accompanied by bacterial infections, except for secondary invasions in the terminal stage of extreme debility and wasting. It is not associated with urticaria, asthma, eosinophilia or any other clinical manifestations of allergy. Its victims are not especially found among members of atopic families. In spite of the predominant female incidence, no endocrine disorders are evident. Although the Wassermann test is often falsely positive during exacerbations and, as Coburn and Moore have shown, the euglobulin fraction is sometimes elevated at the expense of the other blood proteins, these are secondary results of the illness and are not present consistently in the early stages. Finally, although fibrinoid degeneration is one of the characteristic

features of hyperergic inflammation, it is also so readily demonstrable in a variety of nonallergic disease processes that it cannot be accepted, in the absence of any clinical indications, as evidence that disseminated lupus erythematosus is due to hypersensitivity to some unknown agent.

Diffuse Scleroderma

Although the connective tissue changes in the viscera in diffuse scleroderma are identical in distribution and in type with those in disseminated lupus erythematosus, the pathologic changes in the skin and the esophagus are quite different. As in lupus, the skin manifestations begin on the periphery, the hands and feet, bridge of the nose and cheeks, and gradually extend to the rest of the face, extremities and trunk. In diffuse scleroderma, however, the subcutaneous connective tissue undergoes dense sclerosis so that the skin becomes thickened and tight over the bridge of the nose, cheeks and forehead, the mouth becomes puckered and, because of the tightness of the skin on the extremities, the fingers and hands become stiff and fixed in a claw-like position. In extreme cases, the immobility of the phalangeal joints and sclerosis of the digital arteries result in severe rarefaction of the phalanges and atrophic destruction of the phalangeal joints, often with extreme atrophy of the epiphyses. Simultaneous degeneration of the capsules of the joints may result in extensive deposit of calcium into periarticular tissues, so as to form large irregular masses on the phalangeal and metacarpophalangeal joints. A normal concentration of calcium and phosphorus in the blood and the absence of similar deposits of calcium in other parts of the body indicate that these calcareous deposits are merely secondary to local degenerative changes in the connective tissue in and around the phalangeal joints.

Although these progressive changes in the skin at times may be associated with fever of low grade, periods of pyrexia and fulminating illness exhibited by patients with disseminated lupus erythematosus are unusual in diffuse scleroderma unless there are intercurrent infections. Usually, the clinical course is afebrile and slowly progressive for years until death finally occurs because of progressive debility, and inability to swallow due to similar sclerotic changes in the esophagus or an intercurrent pulmonary infection. Temporary arrest in the progress of the disease and even partial remissions without obvious cause

are not uncommon. During the course of the disease, attacks of pericarditis and pleuritis may occur and are due to the same collagenous degeneration of the subendothelial connective tissues seen in disseminated lupus erythematosus. As in disseminated lupus erythematosus, microscopic hematuria is commonly observed. The hematuria is due to changes in renal arterioles and glomerular capillaries which are indistinguishable from those of disseminated lupus, including the "wire loop" lesions.

Some patients who have diffuse scleroderma give a history of having experienced Raynaud's phenomenon in the extremities previous to the onset of scleroderma; others do not. Simultaneously with the appearance of thickening and sclerosis of the skin, marked pigmentation of the skin over the extremities and trunk develops in some cases. The pigmentation and the severe asthenia may arouse a suspicion of Addison's disease, especially if the sclerosis of the skin is not yet far advanced. However, the pigmentation in scleroderma does not involve the mucous membrane. Also, the level of the blood sodium and chloride remains normal even when the patient is taking a low sodium or high potassium diet, and the asthenia or the other symptoms of illness are not accentuated by such diets, as they are in Addison's disease. The finding of red blood cells in the urine microscopically also may be of assistance in the differential diagnosis. A biopsy of skin will show sclerosis of connective tissue immediately beneath the epidermis.

Although the lesions in the glomeruli and in the blood vessels of the kidneys and other viscera and internal tissues of the body consist essentially of fibrinoid degeneration of the collagen and are indistinguishable from those seen in disseminated lupus erythematosus, the changes in the skin and esophagus are diffusely sclerotic from the onset. Even the affected blood vessels of the skin are involved in the dense sclerotic process. This is in striking contrast to disseminated lupus erythematosus in which the skin is soft and extremely vascular and the changes in the subepidermal connective tissue and in affected cutaneous vessels consist of an increase in vascularity and, at most, an increase in ground substance and fibrinoid degeneration of collagen. Sclerosis of connective tissue is encountered in disseminated lupus and erythematosus only in the spleen. There it is found in a thick acellular collar of fibers surrounding the central arteries of the malpighian

corpuscles. This visceral lesion is not characteristic of diffuse scleroderma.

In spite of the similarity in the collagenous changes in the internal organs in these two diseases, their manner of onset, clinical course and symptomatology are so strikingly different that they bear little or no clinical resemblance. Nor does diffuse scleroderma present the overwhelming predominance among females; the incidence of disease is almost evenly distributed between the sexes. Clinically, they must be considered as examples of two different diseases, in both of which the unknown underlying disturbances exhibit their effects in damage to the connective tissue substrate of the body.

As in lupus, patients with diffuse scleroderma give no clinical, familial or other evidence of any relationship to allergy. An allergic explanation for this disease is clinically as improbable as it is for lupus.

The two diseases (disseminated lupus erythematosus and diffuse scleroderma), together with the other examples quoted in Part I of this paper, provide further evidence that the systemic distribution of fibrinoid degeneration, with its effects on blood vessels and endocardium, and on serous and synovial membranes, is not a specific characteristic of allergic or hyperergic states. In the present state of our knowledge, it is impossible to say more than that the widely distributed lesions seen in these two diseases represent a diffuse injury, of still unknown nature, to the supporting and binding substance of all the organs and tissues of the body, through which the humoral and metabolic changes between the blood and other tissues take place.

George Baehr, M. D.,

Abou Pollack, M. D.,

New York, New York.

(Acknowledgment is hereby made of permission by the American Heart Association to publish the above.)

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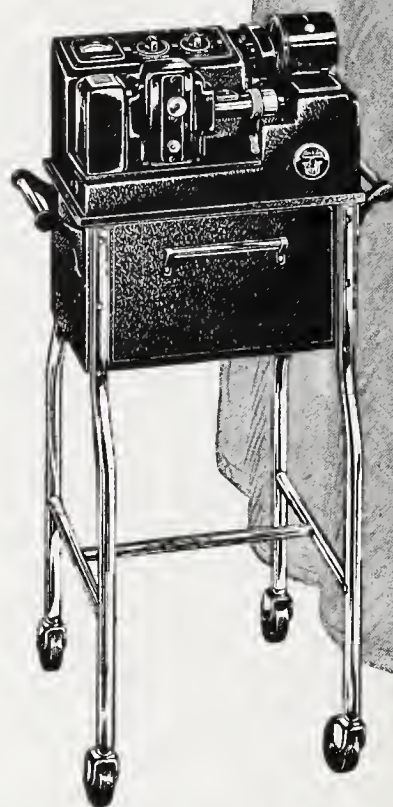
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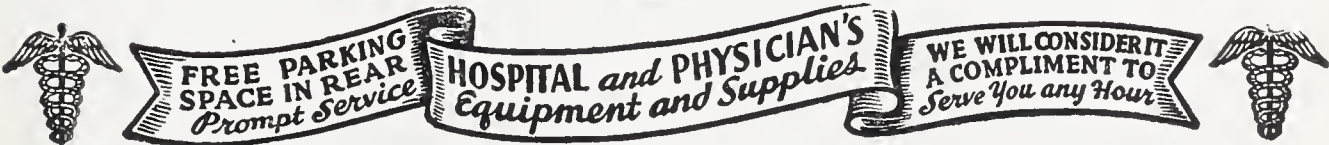
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TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

AMONG community welfare agencies, hospitals have an important place and are a proper concern of every good citizen. The physician, however, is even more immediately involved in hospitals and their policies. The hospital occupies a necessary and vital place in his professional activities, so that proposed changes in hospital procedures and activities merit and receive his closest scrutiny and informed judgment. The present drive to popularize routine chest X-rays for all patients admitted to general hospitals was launched by physicians whose only interest was the protection such a measure affords both to patients and to hospital personnel.

THE OPPORTUNITY

Tuberculosis, which remains a major health problem all over the world, has been under concentrated attack in this country for over 40 years. The greatest effort ever made to eradicate tuberculosis in livestock in the United States was begun about 1900. The result is that today the milk we drink comes from tuberculosis-free dairy herds and our meat comes from non-tuberculous animals.

Viewed from the standpoint of all humanity, this remarkable achievement is little more than an impregnably secured beachhead; but for Americans it has meant almost complete elimination of all human forms of bovine tuberculosis (largely tuberculosis of the bones). Ultimately other countries must also reduce animal tuberculosis.

Today, hospitals are participating in the greatest direct effort ever made to eradicate tuberculosis in humans. This movement began rather slowly about 20 or 25 years ago with tuberculin testing programs for selected groups. This was accompanied by construction of numerous sanatoriums to care for discovered cases. Soon it was learned that physical diagnosis would not discover early cases, but that the X-ray could. There has been real progress. National tuberculosis mortality rates have declined and some areas have achieved mortality lows which were not considered possible 40 years ago.

Despite all this, it was not until about ten years ago that the prospect of complete eradication became a foreseeable probability. The earlier

programs, depending on tuberculin testing, physical diagnosis and limited use of the X-ray, were too cumbersome and expensive for universal coverage and diagnosis of cases in their early stages. These handicaps were overcome by the development of photofluorographic X-ray equipment and there now appears to be justifiable optimism toward the problem of tuberculosis eradication.

The Council on Professional Practice of the American Hospital Association believes that the immediate need is to extend the practice of routinely X-raying chests. This should be done in many different population groups, but the council is, of course, primarily concerned with the hospital program. A few statistics and facts may be worth repeating.

Hospital admissions now exceed 16,000,000 a year. There are other undetermined millions who are seen in outpatient clinics. These two groups lend themselves to routine radiography; they are in hospitals which have the X-ray equipment and the specialists; there is a minimum of inconvenience to the patient; there is a minimum of expense to the procedure; the percentage of cases found is higher than in other large cross sections of the population. Furthermore, many of these persons would not be reached by programs directed at industrial or other population groups. Finally, this is one of the largest organized groups available for routine programs.

Hospitals which routinely X-ray chests of admissions, outpatients and employees give additional service to their patients and provide a new protection to the hospital. Infectious cases

may be segregated from other patients; the employee knows with which patients he must use added precautions to protect himself; in up to ten per cent of patients non-tuberculous conditions may be revealed. It is not intended here to exhaust the arguments in favor of routine chest radiography in hospitals. Those described are important enough to justify the procedure, if the routine is practicable—administratively and economically. It is noteworthy that the Council program stresses practicability rather than theory.

Two years ago the Council surveyed all hospitals to determine the extent of routine radiography. Of 104 hospitals reporting programs, further checking suggests that only a moderate per cent had a routine considered adequate today. On the other hand, a few weeks ago at a regional hospital meeting a dozen or more administrators indicated their hospitals are now X-raying chests routinely. In one state two photo-fluorographic units have been purchased by local tuberculosis associations and placed in hospitals, and four more are on order, or have had funds earmarked for the purpose. The U. S. Public Health Service has approved, or will approve, funds for state and local health departments with which to place several hundred X-ray units in hospitals. Many hospitals are setting up the programs on their own or other resources.

Hospitals generally are now much more interested than they were a few years ago in making their facilities available, not only for the care of tuberculosis cases, but for other long-term treatments, such as those required for psychiatric patients and convalescents. It has been difficult to increase this type of service because of crowded conditions in hospitals.

The institution of case-finding routine radiography by hospitals, however, will bring general hospitals face to face with the necessity of providing facilities for temporary handling of some of the discovered cases.

Routine chest X-raying should not be deferred simply because of the fact that cases of tuberculosis will be discovered. These patients are in hospitals for other reasons in the first place. Failure to discover tuberculosis results in these undiagnosed cases of tuberculosis exposing other patients and employees to tuberculosis. Until new construction permits adequate care for tuberculosis itself, hospitals should be able, with the aid of the manual "The Management of Tuberculosis in Hospitals,"* to accept with safety

tuberculosis patients for non-tuberculosis treatment.

Human tuberculosis is under the most severe attack ever directed at it. The best thinking today appears to be that eradication will be achieved only after a long pull; that more intensive discovery programs will continue to increase the known cases for years to come; that the sensible course is to create the programs and facilities necessary now to maximum discovery and adequate treatment.

Many national, state and local organizations are coordinating their efforts to eliminate this disease. The hospital has a dominant part in the program. It can become a major case-finding agency by routinely X-raying the chests of all patients on admission, all outpatients and all employees.

The Opportunity, Robin C. Buerki, M.D., Hospitals, August, 1946.

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EDITORIAL

THE 1947 ANNUAL SESSION

The 71st Annual Session of the Society was held in the Robinson Auditorium, Little Rock, on April 17th, 18th and 19th with a membership registration of 456, slightly lower than the 1946 registration. The adequate meeting room space and roominess of the facilities at the Robinson Auditorium elicited praise from members, visitors and exhibitors. The scientific program was arranged under the chairmanship of Chas. H. Lutterloh, Hot Springs National Park, and was of exceptional quality and interest. The scientific exhibits were better presented than at any previous session but remain limited in number. The technical exhibits were properly placed, a matter of gratification to our friends, the exhibitors. Harrison H. Shoulders, President, American Medical Association, discussed the economic problems of medical practice at the public evening meeting and his address received considerable press attention. The Pulaski County Medical Society were the usual gracious hosts at an evening social session and buffet dinner on the night of April 18th. At the final session of the House of Delegates, the following officers were

elected: President, L. T. Evans, Batesville; President-Elect, P. W. Lutterloh, Jonesboro; First Vice-President, T. D. Brown, Little Rock; Second Vice-President, L. M. Lile, Hope; Third Vice-President, Fount Richardson, Fayetteville; Treasurer, Paul L. Mahoney, Little Rock; Secretary, W. R. Brooksher, Fort Smith; Councilor, First District, L. H. McDaniel, Tyrnza; Councilor, Third District, S. A. Drennen, Stuttgart; Councilor, Fifth District, J. H. Wilson, Magnolia; Councilor, Seventh District, Euclid M. Smith, Hot Springs National Park; Councilor, Ninth District, D. L. Owens, Harrison; Delegate to the American Medical Association, D. A. Rhinehart, Little Rock, and Alternate, R. B. Robins, Camden. Euclid M. Smith was re-elected chairman of the Council and W. R. Brooksher was elected editor of The Journal. On recommendation of Secretary Brooksher, the Society voted to employ a full-time executive secretary. By unanimous action of the House of Delegates the membership assessment was raised to ten dollars effective with 1948. The Society again voted its approval of the prepayment plan adopted at the January 27, 1947, annual session, details of which have not as yet been released by the committee. The 1948 annual session will be held in Little Rock. The full report of the proceedings will be published in the June issue of The Journal of the Arkansas Medical Society.

RANDOM THOUGHTS OF THE SECRETARY

March 24th. Riding the Southern Belle all afternoon and the Rainbow Special for the night and well repaid for hearing Ira Lockwood for two hours in Kansas City tonight.

March 27th. Complimented by a repeat invitation to participate in Conway's Diagnostic Cancer Clinic where many lesions appear for the edification and stimulation of Hames, Archer, Sneed, Gordy and us. Amazed to see boldly lettered in red paint Archer's Rotary classification at the club luncheon today and Fay Jones may well look to his books. Homeward nursing the new Chevrolet at low speeds and finding the return trip a long, long ride.

April 7th. By the afternoon plane to Kansas City, meeting briefly with the Jackson County Medical Society executive session and then to listen with profit as Lockwood discusses low back pain and homeward, boarding the Missouri Pacific by the closest timing possible—a near-miss.

April 8th. With Stanley Gates as traveling companion over the reconditioned highway 270, once dubbed the "cowboy trail" in these notes, to Hot Springs, guests of Euke Smith for a one of those good "Southern Grill dinners and then to meet with the seventh district society, where we are initiated into the mysteries of an open forum, an excellent program idea.

April 11th. If this telephone tie-up had only come during the days of the Procurement and Assignment Service!

PROCEEDINGS OF THE SOCIETIES

Greene County Medical Society has elected the following officers: President, J. J. Hudgins; Vice-president, G. P. Bridges; Secretary-treasurer, M. A. Kellett; Delegate, R. J. Haley, and Alternate, Alfred Maddox.

Clay County Medical Society has elected the following officers: President, N. J. Latimer; Vice-president, O. H. Clopton; Secretary-treasurer, J. E. McGuire; Delegate, J. B. Futrell, and Alternate, W. E. Turner, Jr.

Craighead-Poinsett Medical Society met in dinner session at Jonesboro April 3rd for the following program: "Tuberculosis," L. H. McDaniel, Tyronza, and "Tuberculosis from the Public Health Standpoint," A. C. Modelvesky, Jonesboro.
J. H. McCurry, Secretary.

Carroll County Medical Society has elected the following officers: President, Ross Van Pelt, Eureka Springs; Vice-president, Vernon Sammons, Berryville; Secretary-treasurer, Wm. A. Woodcock, Berryville; Delegate, Vernon Sammons, and Alternate, Wm. A. Woodcock.

The Sebastian County Medical Society was addressed April 8th by A. C. Clark, Little Rock, on "Office Gynecology."
J. K. Thompson, Secretary.

Drew County Medical Society has elected the following officers: President, C. Lewis Hyatt; Vice-president, J. B. Holder; Secretary-treasurer, R. F. Hyatt; Delegate, J. P. Price, Jr., and Alternate, Vann C. Binns.

Phillips County Medical Society has elected the following officers: President, M. Fink; Vice-president, R. L. Chrestman; Secretary-treasurer, J. B. Terry; Delegate, J. W. Butts, and Alternate, J. B. Terry.

Woodruff County Medical Society has elected the following officers: President, J. W. Morris; Vice-president, F. C. Maguire, Sr.; Secretary-treasurer, C. E. Dungan, and Alternate, F. C. Maguire, Jr.

Mississippi County Medical Society has elected the following officers: President, J. E. Beaslet; Vice-president, L. L. Hubener, and Secretary-treasurer, Thos. F. Hudson.

Saint Francis County Medical Society has

elected the following officers: President, C. N. Bogart; Vice-president, J. M. Roy; Secretary-treasurer, J. O. Rush; Delegate, Ben H. Bradley, and Alternate, J. M. Roy.

FOR SALE—The practice and office equipment of the late Dr. C. C. Stevens, Blytheville.

Write Mrs. C. C. Stevens, Blytheville.

OBITUARY

WILLIAM G. HODGES, age 69 years, of Malvern, died March 22nd after a week's illness. Born in Antioch, he taught school in Hot Spring county prior to graduation from the National University of Arts and Sciences Medical Department, Saint Louis, in 1912. He first located at Magnet Cove and moved to Malvern shortly thereafter. For the past twelve years he had been a member of the Arkansas State Board of Health, serving as its president. He had been city health officer at Malvern for 15 years. He had served the Hot Spring County Medical Society in its several offices, and was a fellow of the American Medical Association, the Masonic orders, the Odd Fellow lodge, the Woodmen of the World, the Malvern Rotary club and the Malvern Methodist church. Surviving relatives are his wife and a daughter.

CARLOS C. STEVENS, age 68, Blytheville, died March 24th. Born in Livingston county, Kentucky, he graduated from the University of Georgia School of Medicine in 1902. He practiced in Jonesboro prior to locating in Blytheville in 1905. In addition to his membership in the Mississippi County Medical Society and in the Arkansas Medical Society, he was a fellow of the American Medical Association. Surviving relatives are his wife, a daughter and a son.

THOMAS F. HUDSON, age 64, of Luxora, was killed by a train-car collision March 20th. Born in Tennessee, he graduated from Memphis Hospital Medical College in 1907 and had practiced in Luxora since graduation. He was secretary of the Mississippi County Medical Society, a Fellow of the American Medical Association, a deacon in the Baptist church, past-president of the Luxora Rotary club and a past vice-president of the MidSouth Postgraduate Medical Assembly. Surviving relatives are his wife and a daughter.

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INSTRUCTIONAL COURSE IN ALLERGY

The Mississippi Valley Sectional Instructional Course in Allergy will be given under the auspices of the University of Kansas School of Medicine, on May 5th to 8th, inclusive, at the University of Kansas Hospitals, in Kansas City, Kansas, and is sponsored by the American College of Allergists.

A well-balanced program has been planned to specifically acquaint the physician with the basic principles of diagnosis and management of allergic diseases.

Round-table discussions, laboratory, and clinical sessions, will be held in addition to formal lectures covering the practical application of the various phases of this subject. Whether you are in the practice of general medicine or limiting your practice to pediatrics, otolaryngology, or dermatology, you will be interested in this course. It was arranged in direct response to various requests from physicians in the above named specialties.

A more detailed program may be had by writing the chairman. The fee for the course is \$50.00, payable at the registration desk at the University of Kansas School of Medicine, Kansas City, Kansas. Applications for the course and for hotel reservations should be placed with the chairman of the Program Committee, Orval R. Withers, M. D., 1418 Bryant Building, Kansas City 6, Missouri.

JANE TODD CRAWFORD STUDENT LOAN FUND IN GYNECOLOGY

On Christmas day, 1809, a hundred and thirty-seven years ago, a backwoods physician in his home in Danville, Kentucky, successfully removed a large ovarian cyst without anesthesia or antisepsis, thus making his own name and that of his patient immortal. Ephraim McDowell thus paved the way for modern abdominal surgery and gynecology. Jane Todd Crawford, the patient, by her bravery, has become a symbol of heroism.

Very fittingly the Woman's Auxiliary to the Southern Medical Association has established a loan fund for young Southern physicians wishing to pursue the study of gynecology. The requirements are simple: he or she must not be over 32, of good character, and showing evidence of being capable of absorbing adequate knowledge.

The loan, of course, must be returned in small installments after completion of the study.

This would seem to be a rare opportunity, for example, for a bright young resident finishing a service to strengthen the weak spots in his training, or to familiarize himself more fully in tissue pathology, the vaginal and cervical smear cytologic detection of fundal or cervical cancer, irradiation in cancer, the technics of the more radical panhysterectomies for cancer, endocrinology, sterility diagnosis and treatment, or intensive review of the anatomy of the pelvis and perineum.

Several branches of this Auxiliary in the past have offered medical loan scholarships for undergraduates in medicine. But this seems to be the first postgraduate scholarship under the Woman's Auxiliary sponsorship.

Teachers of gynecology should pass this information on to their students.

Inquiries may be addressed to Mrs. J. Ullman Reaves, 1862 Government Street, Mobile 18, Alabama.

Southern Medical Journal,
March, 1947.

PERSONALS AND NEWS ITEMS

Carl L. Wilson, Fort Smith, has been made a diplomate of the American Board of Urology.

Alfred Hathcock and Fount Richardson, Fayetteville, attended the Dallas Southern Clinical Society during March.

R. B. Robins, District Chairman for Arkansas, Louisiana, Oklahoma, Mississippi and Texas of the Conference of County Society Officers, attended a meeting of district chairmen in Chicago March 30th.

Jos. F. Shuffield, Little Rock, presided over the panel discussion on intestinal obstruction at the sectional meeting of the American College of Surgeons held in Fort Worth March 20-21, 1947.

Alan G. Cazort, Little Rock, addressed the Mississippi Valley Sectional Instructional Course in Allergy at the University of Kansas School of Medicine, Kansas City, May 8th, on "Status Asthmaticus: Treatment."

Gilbert O. Dean has been elected a member of the Little Rock School Board.

The Arkansas Society for Crippled Children has elected the following officers: President, Pat Murphey, Little Rock; Vice-president, G. R. Siegel, Clarksville, and Honorary Vice-president, J. O. Rush, Forrest City.

Among those in attendance at the Dallas Southern Clinical Society meeting during March were: J. M. Sheppard, El Dorado; J. B. Stewart, Fort Smith; J. A. Henry, Russellville; W. A. Fowler, Fayetteville, and B. A. Bennett, Little Rock.

Fount Richardson has been elected surgeon of the Fayetteville post, Veterans of Foreign Wars.

R. C. Dickinson, Horatio, has been elected vice-president of the Sevier County Wildlife Association.

B. N. Saltzman has been elected exalted ruler of the Mountain Home lodge, B. P. O. E.

Louise and Murphey Henry, Fort Smith, and M. E. Blanton, Jonesboro, attended a course in

eye pathology recently held at University of Tennessee, Memphis.

Dr. and Mrs. F. Walter Carruthers and Dr. and Mrs. R. M. Eubanks, Little Rock, spent a recent vacation in Mexico.

Fred Ogden is now associated with R. H. Huntington at Fayetteville in the practice of ear, nose and throat. Dr. Huntington will confine his practice to diseases of the eye.

W. O. Young has been elected president of the Russellville Country Club.

Ellis Gardner, Russellville, recently took postgraduate work at the University of Indiana.

J. B. Stewart, Fort Smith, recently attended a postgraduate course at the University of Kansas.

J. Harry Hayes, Little Rock, attended the recent sessions of the American Association for the Study of Goiter at Atlanta.

The Ninth Councilor District Medical Society was addressed at Poteau, Oklahoma, April 25th, by M. B. Hoge, Fort Smith, "Fractures Below the Knee," and Jos. F. Shuffield, Little Rock, "Fractures of the Hip."

Norman Peacock has been elected director of the Ashdown Rotary Club.

Neil Compton has been elected a director of the Bentonville Rotary club.

A. C. Watson, Jr., Little Rock, is now serving an internship at Hartford Hospital, Hartford, Conn.

H. King Wade, Jr., has been released from military service and is now associated with the Wade Clinic at Hot Springs National Park.

W. W. Hornsby has moved from Ola to Mansfield.

A. C. Parker has been released from military service and has located for practice at Clarkdale.

The following conducted diagnostic cancer clinics during March under joint sponsorship of the county medical societies and the Arkansas Division, American Cancer Society: Booneville,

I. F. Jones and D. W. Goldstein; Camden, Carl A. Rosenbaum; Harrison, W. G. Cooper, and Conway, Fred Hames and W. R. Brooksher.

A. J. Goforth, Jr., Nashville, is serving a residency at Saint Luke's Hospital, New York, New York.

N. T. Hollis has been appointed superintendent of the State Hospital.

General Wainwright recently presented Henry G. Hollenberg with the Legion of Merit.

B. N. Saltzman has been elected surgeon of the Mountain Home post, Veterans of Foreign Wars.

J. W. Kennedy, Prescott, is taking a three months' course in surgery at New York Polyclinic.

WOMAN'S AUXILIARY NEWS

The Women's Auxiliary to the Union County Medical Society held their monthly meeting at the home of Mrs. G. D. Murphy, Jr., East Sixth Street, March 13, 1947, with the following members present: Mrs. Warren Riley, Mrs. Amanada Sheppard, Mrs. J. K. Sheppard, Mrs. John H. Pinson, Jr., Mr. G. D. Murphy, Sr., Mrs. L. G. Fincher, Mrs. Frank Clark, Mrs. Jack M. Sheppard, Mrs. F. G. Thibault, and Mrs. B. L. Moore.

Instead of regular luncheon, a business meeting was held, since the annual Doctor's Day will be observed with a dinner Thursday night, March 27th, in the home of Mrs. Warren Riley. Plans were made for this dinner and a food committee and flower committee was appointed by the president, Mrs. G. D. Murphy, Jr. Treasurer's report was given, and the motions passed that \$10.00 be given the Erle Chambers Library Fund instead of the \$5.00 donation decided on at the last meeting.

All surplus books around the home are to be brought to the Doctor's Day meeting. Each member is expected to contribute at least one, and they will be mailed to the State Tubercular Hospitals.

A list of Pioneer Doctors was given by Mrs. Amanada Sheppard, and suggestions were made in order to complete this report. Mrs. G. D. Murphy, Sr., and Mrs. J. B. Wharton, Sr., are also on this committee.

Mrs. L. G. Fincher, chairman of the nominat-

ing committee, read the list of new officers to take office in September. Mrs. Frank Clark, President; Mrs. J. H. Pinson, Jr., Vice-President; Mrs. J. K. Sheppard, Recording Secretary; Mrs. G. D. Murphy, Sr., and Mrs. F. G. Thibault, Corresponding Secretary.

Mrs. Jack M. Sheppard,
Corresponding Secretary.

In observance of "Doctor's Day," members of the Auxiliary to the Sevier County Medical Society honored their husbands at luncheon at the Dee Swift Hotel Tuesday at 1 p.m.

Spring flowers in crystal containers were used in decorating the table where covers were laid for Dr. M. L. Norwood and Mrs. Leonard Hampson of Lockesburg, Dr. and Mrs. R. C. Dickinson and Mrs. Clarence Hooper, Horatio; Dr. and Mrs. Pierre Redman, Mena; Dr. and Mrs. J. S. Hendricks, Dr. and Mrs. C. E. Kitchens and Dr. and Mrs. C. A. Archer, De Queen.

Following luncheon the two groups assembled for their respective business meetings. Officers for the Auxiliary were re-elected as follows: President, Mrs. C. E. Kitchens; vice-president, Mrs. Redman; treasurer, Mrs. Hendricks; secretary, Mrs. Archer.

There will be no meeting of the Auxiliary in April because of conflict with the state meeting. The May meeting will be held in Mena with Mrs. Redman and Mrs. Ed Myers as co-hostesses.

BOOK REVIEW

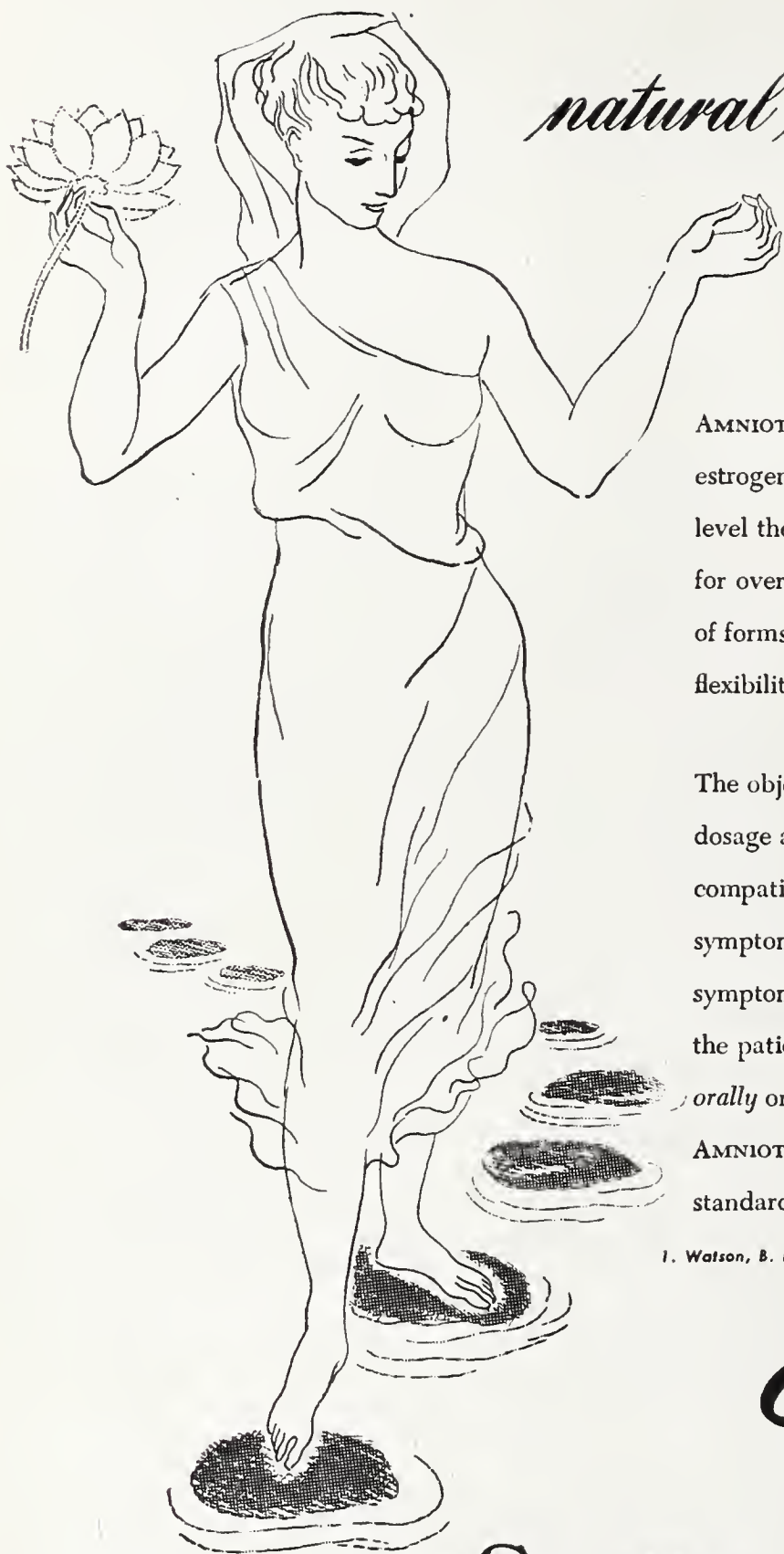
Allergy in Theory and Practice: By Robert A. Cooke, M.D., Sc.D., F.A.C.P., Attending Physician and Director of the Department of Allergy, the Roosevelt Hospital, New York City. 572 pages, with 43 illustrations. Philadelphia and London: W. B. Saunders Company, 1947. Price \$8.00.

Thirty-two chapters in nine sections are so well organized, and the material is so carefully edited to avoid unessentials, that only 552 pages are necessary—a considerable attraction.

Various chapters on special subjects have been prepared by able and well known authors, mostly associates of Dr. Cooke, so that the reader can have the benefit of varied personal factors.

Section I is taken up with fundamental definitions and principles of immunology, chemistry, and pathology. Dr. Cooke considers the mechanism of asthma to be bronchial edema, not spasm, and gives good reasons for this.

Broadly he divides asthma into non-infective and infective types, both on an immunological basis. This is a bold distinction, considering the various opinions held by allergists on bacterial sensitivity. Though it cannot be supported by generally accepted evidence, the division is a practical one from the standpoint of treatment. The



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1. Watson, B. P.: J. Clin. Endocrinology 4:571 (Dec.) 1944.

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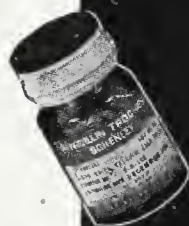


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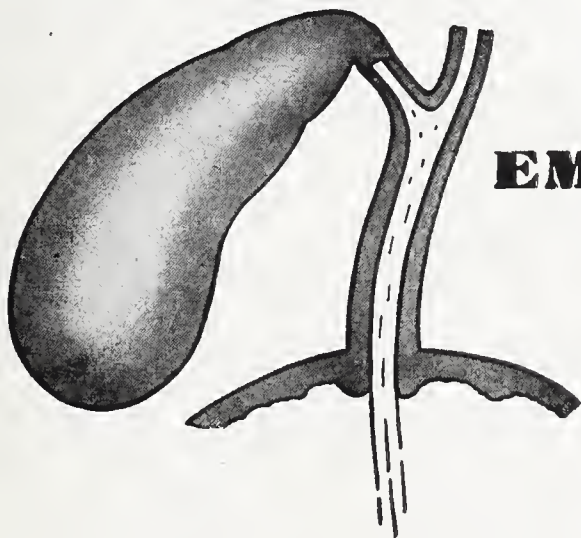
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reviewer is in entire accord in theory but has not had reason to share Dr. Cooke's optimism toward the infective (intrinsic) type associated with hyperplastic sinusitis.

The discussion of allergic rhinitis is conventional, but treatment is more exactly systematized than is seen in most offices and clinics.

Section IV, Allergy of the Skin, begins with a chapter on allergic dermatitis. Here those who cannot accept a common basis for such widely different clinical entities as Contact Dermatitis and Atopic Dermatitis can find much stimulus to thought and many statements with which to disagree. Although the reviewer's clinical observation forces him to disagree on certain fundamental concepts, he enthusiastically recommends this section to anybody interested in the subject.

The chapter on contact allergy by Dr. Louis Schwartz contains in a few pages a compact wealth of information on sensitizing agents used in industry and contacted by the public. This information is very important both in industrial medicine and in private practice.

The chapter on treatment is brief but superb. Attention to the principles outlined will help the general practitioner and the specialist out of some very serious troubles.

Section V deals with allergic neuropathies, migraine, and Miniere's disease. Known pathology, with various pertinent facts and theories, are discussed. Dogmatic statements are avoided and few personal opinions are expressed.

The chapter on allergy of the cardiovascular system is particularly worthy of study. Dr. Harkavy, a pioneer investigator himself, does an excellent job of coordinating

clinical observations with pathological studies of certain irreversible vascular reactions.

Allergy of the Digestive System deals with allergic symptoms manifested in the gastro-intestinal tract, their causes, and mode of production.

One chapter is given to what is known and postulated about allergic reactions in various tissues of the eye, both reversible and irreversible.

The remainder of the book is devoted to special elaboration of important subjects mentioned previously, to the physical allergies about which very little is known, and to skin testing and laboratory procedures.

Since Dr. Cooke has devoted years to teaching as well as to practice and investigative work, the reader can expect to find most of his questions answered in the clear and logical manner of an experienced and successful teacher. Possibly the book is weak on physiology and therapy but this can be obtained elsewhere. Dr. Cooke has succeeded in packing so much into so few readable pages that strict selectivity of fundamental detail has been demanded.

Gastro-Enterology. By Henry L. Bockus, M. D., Professor of Gastro-enterology, University of Pennsylvania Graduate School of Medicine. In three volumes, totaling about 2,700 pages with about 900 illustrations, many in colors. Volume III—"The Liver, Biliary Tract and Pancreas, and Secondary Gastro-intestinal Disorders." 1,091 pages with 427 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1946. Price, 3 volumes and separate desk index, \$35.00.

This volume completes an exceptional work, comprehensively covering the subject of gastroenterology.

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